

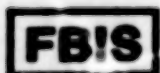
JPRS 79263

21 October 1981

East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 2190



FOREIGN BROADCAST INFORMATION SERVICE

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21 October 1981

EAST EUROPE REPORT

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INTERNATIONAL AFFAIRS

BRIEFS

ALBANIAN-GDR TRADE PROTOCOL--The protocol for goods exchange and payments for 1982 between the People's Socialist Republic of Albania and the German Democratic Republic was signed in Tirana on 16 September. On the Albanian side the protocol was signed by the deputy minister of foreign trade, Muzafer Ahmeti, and on the German side by the deputy minister of foreign trade, Dieter Lemke. Taking part in the signing ceremony were members of both delegations. Also present was (Karl Heinz Haising), charges d'affaires ad interim of the German Democratic Republic's embassy in Tirana. During its stay in our country the government trade delegation of the German Democratic Republic was received by Foreign Trade Minister Nedin Hoxha. [Text] [AU161924 Tirana Domestic Service in Albanian 1800 GMT 16 Sep 81]

CSO: 2100/4

DELAYS IN PREPARING DESIGNS, ESTIMATES FOR CONSTRUCTION

Tirana ZERI I POPULLIT in Albanian 16 Sep 81 p 3

[Article by Gani Myrto, from the Ministry of Finance and Myslym Nela], from the General Directorate of the State Bank: "An Important Indicator of the Effectiveness of Investments"]

[Excerpts] The completion and commissioning of projects on schedule are closely linked with the effectiveness of the use of investment funds and have a direct influence on the speedy development of production forces, on the stimulation of the technical-material base of socialism and the strengthening of the defense capability of the country. Without denying the good work which has been done in this area by the investment organs and the executing organs, it must be said that there are still shortcomings such as the failure to observe the schedule for the beginning of work, tendencies to distribute manpower and equipment over a large number of projects, delays in providing machine and equipment on a timely basis. The fact that so far some investors have not provided final designs and estimates for projects planned for this year indicates that the responsibility of investment and design organs must be increased. In some districts, this situation exists in regard to investments for 1982. The lack of these designs and estimates has a bad effect on the proper planning, by the executing enterprises, of the necessary material base, technological equipment and machinery, manpower, and means of transportation. For example, the construction enterprise in Durres has not been given an estimate for the 6 projects which the plan has scheduled for completion this year. In Vlore, no designs were submitted for 5 projects until the end of the seventh month. In Tirana, because of lack of designs and construction areas, the procrastination has been continuing for a long time and work was not begun on schedule in 4 projects.

The lack of complete studies and the delays and deficiencies in the assigning of blueprint tasks have had a negative influence on the process of preparing designs and estimates. Quick changes have had to be made during the execution phase and sometimes work had to be interrupted and estimated costs had to be exceeded. The faulty preparation of the designs and of the final estimates has also created difficulties during the implementation of the construction-installation plan. These matters require the most thorough study and the best correlation of work between the investing enterprises and the design offices and the fullest involvement of the sections in the executive committees of the district peoples councils and the ministries in order to eliminate such deficiencies which have a negative effect on the effectiveness of the use of funds and resources.

There are executing enterprises in which manpower and material are spread thin, resulting in increased construction costs and, in some cases, in misuse of the material base. This results from the tendency on the part of some directors to go after new fronts, where the structure of operations has great value and the plan is fulfilled easily, globally, leaving unfinished some work which they consider to be "minor." In Peshkopi alone, the Directorate of Waters has directed work on 22 small projects and in many of them the work has continued for a period of from 1 to 3 years.

Carelessness in acquiring the necessary machinery and equipment on time has been a factor in the failure to complete projects on schedule. Many investors are guilty of delays of this type. One might mention some enterprises of the Ministry of Light Industry and the Food Industry and the Ministry of Industry and Mines. Also, the executive committees of the district peoples councils have not kept a systematic check over the enterprises under their jurisdiction, especially in regard to the machinery and equipment which they contracted to produce in the country. For example, there have been problems of this nature in the petroleum sector where, because of lack of technological equipment, there have been delays in putting wells into operation.

In order to ensure that investments are used effectively it is not sufficient that projects be built on schedule; they must also be utilized according to the plan. For example, as a result of the failure to complete and commission the extraction factory in Ballsh—which should have been completed in 1980—a large quantity of olive mash, about 3400 tons, stored in the oil factories in Fier, Cakran and Ballsh was not processed.

An economic-financial analysis made in several districts shows that the problems connected with the observance of schedules for the commissioning of projects, as one of the main indicators of the economic effectiveness of investments, should receive greater attention from the financial and banking organs.

CSO: 2100/6

LACK OF SUPERVISION BLAMED FOR POOR RESULTS IN HOUSING CONSTRUCTION

Tirana ZERI I POPULLIT in Albanian 24 Sep 81 p 3

[Article by Mitro Cela: "More Apartments of Better Quality"]

[Excerpts] Recently a meeting was held in Tirana for construction workers in the sectors of the communal economy and other related sectors on the subject of providing housing of good quality, on schedule.

During this five-year plan, 81,000 apartments and houses will be built in the cities and villages. In addition to the contribution of the working masses, the state will invest more than a billion leks in their construction. There will be enough new apartments and houses to accommodate a population twice as large as that of Tirana City. This shows the great concern which the party has for increasing the well-being of the working masses.

What is the situation this year? In Korce, Pogradec, Gjirokastr, Librazhd, Permet and other districts, the plans for the construction of apartments are being executed at a regular pace. However, in Durres, Kukes, Lezhe and other districts, shortcomings have been created. Analyses which have been made reveal that the causes of these shortfalls are all subjective. According to what was said in the recent Tirana meeting, attention should be concentrated on the following problems in order to ensure the fulfillment of the housing construction plans at a regular pace.

First: construction sites must be obtained on schedule. If the sites are found by the deadlines specified in the orders, conditions are created for the concentration of means and workers. In Durres, Shkoder, Tirana and Lezhe there have been delays in the designation of construction sites. As a result, the beginning of construction was put off from one month to another and the apartments are not being completed on time. In order to eliminate these faults, this problem should be given serious attention by the executive committees of the district peoples councils. Before they determine the housing sites, the city planning offices should make complex and long range studies. They should not think only about the building but also about the surroundings. Workers want beautiful and comfortable apartments but they also want areas where children can play and gardens where they can spend their free time.

Second: the concentration of construction work. Work experience in Korce, Pogradec, Tirana and other districts shows the superiority of centralization in

constructing housing on a timely basis, with good quality and low cost. In this way, work can be mechanized, prefabricated sections and cranes can be better utilized and construction areas are transformed into installation areas. One cannot say that there is any construction worker who does not recognize the superiority of this form of organization of work. Nevertheless, in some districts, there is a decentralization, rather than a centralization, of work. In Lushnje, for example, workers were taken off the construction of apartments for months at a time and transferred to other sectors. This happens as a result of defective monitoring on the part of some peoples councils executive committees and, especially, on the part of the investors. In many cases they do not properly monitor the work being performed during the construction process.

Third: the quality of the constructions remains the most important factor in the creation of the best living conditions for the workers. In regard to quality there are some problems which require solutions. The quality of some materials leaves much to be desired. The paints used on the walls are not long-lasting. The bricks are often not baked sufficiently and not standardized in regard to shape. Before the builders even leave the housing units, the locks fall out, and the doors and windows barely open and close because the frames are not anchored properly. There is no supervision during the construction process. In some cases the interior plastering is of poor quality. In some housing units, the builders leave without grading the land. These things should be a topic of discussion for the builders and the investors. At the same time, the responsible organs, the appropriate sections in the executive committees of the district peoples councils and the directorates in the ministries, should take the matter of the quality of constructions in hand and call to responsibility anyone who violates the conditions of the projects.

Fourth: the spirit of the campaign for housing construction should be augmented with voluntary contributions. This year, housing constructed through voluntary contribution was completed by the planned deadlines in Berat, Shkoder and Fier districts. But in some districts there have been shortfalls. The construction of some apartments has been postponed from one year to another. In many cases, the work staffs for constructions through voluntary contribution did not meet to analyze the shortfalls in the implementation of the schedules. The executive committees of the district peoples councils must increase their assistance to and supervision of the staffs for the construction of apartments through voluntary contribution.

CSO: 2100/6

FOREIGN TRADE RELATIONS, ACTIVITIES SURVEYED

Trade With Developing Countries

Sofia IKONOMICHESKI ZHIVOT in Bulgarian 2 Sep 81 p 8

[Article by Senior Science Associate First Class Todor Vulchev: "Increasingly Active Economic Relations"]

[Text] Socialist Bulgaria's economic relations with the developing countries have an already quite long history of more than 30 years. Even though it is of interest to trace how they have grown stronger simultaneously with Bulgaria's industrialization and with the profound politicosocial changes in the former colonial world, we should like here to concentrate our attention on their present state, trends and prospects.

Bulgaria's Foreign Economic Relations with Developing Countries Being Intensified-- Structural Changes in Reciprocal Trade--Bulgaria Renders All-Round Assistance

Bulgaria's trade with the developing countries continues to grow at a high rate as hitherto. In 1979 it exceeded 1 billion foreign-exchange leva for the first time, amounting to 1,120,000,000 foreign-exchange leva as against 253 million in 1970. The developing countries' share of Bulgaria's foreign trade reached 7.4 percent as against approximately 6 percent at the beginning of the 1970's. The decisive role of Bulgaria's integration relations with the CEMA-member countries as well as the delivery of machinery from the capitalist countries are factors which limit the group of developing countries to third place in our country's system of foreign economic relations. Nevertheless, Bulgaria's relations with the developing countries will continue to grow, probably at a rate outstripping the average, given which the elements of stability in them will gradually increase and a transition take place to higher, improved forms of collaboration.

Two significant changes came about in our trade with this group of states after 1973: one was in the index of "trade conditions," while the other was in the growth of balances favorable for Bulgaria.

Substantial price changes in the world markets during the 1970's worsened the so-called "trade conditions" index for us appreciably. The prices of imported

goods rose rapidly and to a greater extent than the prices for Bulgarian export commodities. This can be seen, for example, from the fact that while the physical volume of exports almost doubled from 1973 to 1979, imports in terms of physical volume increased by only about 55 percent. The deterioration in conditions of exchange with the developing countries was above average since imports of fuels and mineral resources (the prices of which rose most rapidly) constituted an especially large share of the trade with them. This adverse circumstance for our country was due, however, to general trends in the dynamics of world market prices and not to the political and socioeconomic character of the relations between Bulgaria and the group of developing countries.

At the same time Bulgaria's favorable balance from trade with the developing countries grew. In 1979 it amounted to about 600 million foreign-exchange leva. An important contribution to the achievement of favorable balances (used to equalize Bulgaria's balance of payments) was made by the growing capabilities of Bulgarian industry and agriculture to export commodities of good quality in ever larger quantities and at competitive prices.

Substantial changes still have not come about in the degree of concentration of our foreign economic commerce with the developing countries. Just as in the 1960's, today (albeit on different scales) a dozen countries alone--mainly from the region of the Near and Middle East (Libya, Iraq, Iran, Syria, Turkey etc.), as well as such countries as India and Brazil--account for three-fourths of the commerce. A certain, still limited growth in commerce is observable with some countries in Africa south of the Sahara--Nigeria, Angola, Mozambique etc.

Worthy of note is the growing share of the export commodity structure represented by machinery and equipment, including package equipment, for plants in the food, wine and tobacco industries, for the production of construction materials, chemical plants, hothouses, metal-cutting machinery and transport vehicles etc. These play a definite role in the developing countries' efforts to industrialize. Although our imports now have mainly the character of fuels and raw materials, Bulgaria is making efforts to expand the procurement of industrial goods from the developing countries, thus endeavoring to support their newly created industry.

The significance of the developing countries for the foreign trade and overall for the economy of our country is more striking if their share of the imports or exports of certain commodities is taken into account. Thus, for example, of all the transformers exported in 1978 87 percent were sold in the developing countries. This percentage for the following was, respectively: electromers 77, water pumps 58, nitrogen fertilizers 71, carbamide 35, fresh frozen meat 43. Obviously, for some commodities the developing countries are our main or one of our important foreign markets. At the same time our entire imports of phosphates, jute, cocoa and sunflower crush comes from the developing countries, as well as 90 percent of the rubber and 47 percent of the tanning extracts. Hence for certain items the developing countries are emerging as our industry's chief suppliers.

A positive factor in economic relations with the developing countries is the expansion of cooperation in a number of other areas and the gradual transition to higher forms. We cannot help observing that Bulgarian construction and planning

organizations are carrying out activity in these countries that amounts to hundreds of millions of foreign-exchange leva. They have built airfields, sports complexes, public buildings, hotels, hospitals, residential districts, roads, bridges, railroad lines, irrigation systems etc. Geological exploration plays an important part in the exploitation of natural resources. In all, about 10,000 Bulgarian specialists are working in the developing countries by virtue of international treaties of scientific and technical cooperation and on projects entrusted to Bulgarian construction organizations. The need for skilled personnel with a higher education is met by training students from the developing countries in Bulgarian higher educational institutions. These number more than 1000 at present, while several thousand who have completed their education are already working for the progress of their countries.

Despite the successful development of Bulgaria's economic relations with the developing countries, in their scale they still lag significantly behind the possibilities that actually exist.

The agreements that have been entered into in recent years within the framework of bilateral and multilateral relations with individual developing countries or a group of countries reflect the mutual effort to draw the developing countries gradually into intensive trade with the socialist community as a whole. More lasting and stable forms and an international division of labor between the socialist and the developing countries will be obtained on this basis.

Bulgaria's Trading Partners Surveyed

Sofia IKONOMICHESKI ZHIVOT in Bulgarian 9 Sep 81 p 8

[Article: "A Respected and Sought-After Partner--Bulgaria Maintains Trade Relations with More than 100 Countries in the World"]

[Text] Growth Figures and Facts

Bulgaria now maintains diplomatic relations with 116 states, trade relations with more than 110, and cultural relations with 132

During the period from 1957 to 1980 the total length of "Balkan" BGA [Bulgarian Civil Aviation]'s domestic air routes increased 28 times and reached 77,540 km while the total length of international air routes increased nearly 40 times. The latter already number 40, with the 41st and longest, Sofia-Damascus-Abu Dhabi-Singapore-Ho Chi Minh, to be opened in October 1981. Last year 1,327,000 passengers were carried on international air routes as compared with 23,000 in 1960.

In 1940 Bulgaria had altogether 9 ships and 300 seamen sailing mostly in the Black and Mediterranean Seas and on routes to

England and Norway. Our merchant fleet now has scores of ships and thousands of seamen. Whereas in 1970 they called at 320 ports in 67 countries, last year there were already more than 520 ports and more than 90 countries. Bulgarian seamen and ships ply all the seas and oceans, make round-the-world voyages, repeatedly cross the equator and the Panama Canal, and touch the shores of Canada, Brazil, Japan and other countries thousands of kilometers distant from Bulgaria.

The Bulgarian "dry-land fleet"—heavy-duty trucks with the lettering "Bulgaria"—traverse the length and breadth not only of Bulgaria, but also of Asia and Africa. It has business contacts with more than 65 foreign companies and is one of the largest fleets in the world in respect of the number of vehicles and the freight carried.

On the world map Bulgaria is one of the smallest—we might say, hardly noticeable—countries. This is explainable. It ranks 101st in the world in respect of territory and 61st in population.

Our small country is first in the world in per capita production of battery-operated trucks and motor trucks, copper vitriol, soda ash, tobacco and cigarettes. It is second in the world in per capita production of woolen yarns, tomatoes and sunflower seed; it is among the first five in the production of brown coal, cotton thread, wheat and corn. Its modern industry provides more than 22 percent of the world production of battery-operated and motor trucks, nearly 10 percent of the copper vitriol, over 6 percent of the soda ash etc. Its agriculture, mechanized on a large scale, produces about 3 percent of the sunflower seed in the world, 2.5 percent of the tobacco, and 2 percent each of the grapes and tomatoes. World statistics assign Bulgaria 19th place among the 20 developed machine-building countries that produce 99 percent of the machinery in the world market, and 15th or 16th place among the countries with the largest per capita foreign commerce.

These data are striking confirmation of the remarkable progress Bulgaria has made along the path of socialism under the leadership of the Bulgarian Communist Party and in close cooperation with its sister CEMA countries and above all with the USSR. In 37 years of socialist development it has become not only an advanced industrial-agrarian country with a high living standard, but—thanks to its solid economic and scientific and technical potential—a sought-after and respected partner of scores of countries in all regions of the planet. In Comrade Todor Zhivkov's words, there is no other period of our history when we have had economic relations with so many countries and on such a wide scale.

In recent years Bulgaria has maintained regular trade relations with more than 110 countries on five continents. Twenty years ago there were 71, and in 1939 barely 52. Bulgaria has its own trade delegations in 80 countries. The average annual increase of commerce (about 14 percent in the past quarter century) is one of the highest in the world. The volume of our foreign commerce in terms of its value already exceeds 14 billion foreign-exchange leva with exports surpassing imports by more than 600 million foreign-exchange leva. Exports are 45 times greater than in

1939, almost nine times greater than exports in 1960, and nearly three times greater than those made in 1970. Not only have they grown more rapidly than imports (60 times since World War II), but they have radically changed their commodity structure too. The proportion of industrial commodities now is 96 percent as against 84 percent in 1960. About 45 percent of them now are machine-building products whereas two decades ago this proportion was only 13 percent. Our country is known on five continents as a major exporter of materials-handling, electronic computer, agricultural and other equipment, of metallurgical and chemical output, of products of light industry, of wines, cigarettes, dairy products, fresh and processed fruits and vegetables and other agricultural products.

The dynamic and stable development of foreign trade in the 1970's, especially during the Seventh Five-Year Plan, effected despite a complicated and difficult international economic situation due to the foreign-exchange and the raw-materials and energy crisis in the world capitalist economy, attests to the great potentialities and strength of the Bulgarian economy. An incontestable achievement that raises her international prestige still more is the fact that in precisely this situation she maintained her high rate of economic development, expanded markets for her goods, significantly increased her exports and realized a favorable balance in her foreign-trade balance of payments. This happened due to the steadfastly pursued April policy of the BCP for an increasingly comprehensive alignment with the Soviet Union and an ever closer economic integration with the CEMA-member countries, and to improvement of the mechanism for the interfacing of national production with the international market.

Bulgaria's membership in CEMA with its vast and stable market and her integration with the Soviet Union and other sister socialist countries are a decisive factor in the upward development of her economy and her foreign trade. These countries now account for over 72 percent of our foreign commerce, and the USSR alone for 53.5 percent. From our sister countries we get our basic raw materials almost entirely, and over 85 percent of our machinery and equipment needs. The CEMA countries remain the largest buyers of our industrial and agricultural goods. In the Soviet market Bulgaria sells over 80-90 percent of the exported electric typewriters, electronic calculators, automatic telephone exchanges, electric motors and tractors, over 70 percent of the electrotelphers etc. A powerful stimulus to the development of reciprocal business collaboration is the implementation of the CEMA comprehensive program of socialist economic integration, the decennial of which we observed this year, and the long-term categorical programs of cooperation that have been adopted in the most important economic areas. Our largest trading partners after the USSR are the GDR, Poland, Czechoslovakia and Romania.

In the 1970's the developing countries' share of our foreign commerce grew from 5.6 percent to 9 percent, the absolute figures exceeding 1.5 billion foreign-exchange leva as against 253 million foreign-exchange leva in 1970. Bulgaria not only trades with this numerous group of countries on a basis of equality and mutual advantage, but endeavors actively to promote their independent economic growth. She makes available to them specialists and credits for the creation of production capacity, package projects, miscellaneous equipment and machinery, and instructs their key personnel. At the same time their export deliveries in the Bulgarian market enjoy a number of facilitations. Our most important trading partners among these are Libya, Iraq, Algiers, Syria, India, Nigeria etc.

During the past decade under the conditions of the detente that set in, great progress was also noted in our business collaboration with the developed capitalist states. It was put on a solid contract-law basis and fostered by the work of bilateral commissions that were set up. We entered into more than 50 agreements for production, technical and market relations with well-known Western companies and many more contracts and agreements for cooperative efforts with small and medium-sized companies which found worthy and promising partners in the person of Bulgarian economic organizations. From 743 million foreign-exchange leva in 1970 commerce with these countries in 1980 went to 2.8 billion foreign-exchange leva, or about 16 percent of our total commerce. Among our most active business partners are companies from the FRG, Greece, Switzerland, Italy, France, Great Britain, Austria etc.

In implementation of the decisions of the Twelfth BCP Congress regarding intensive socioeconomic development during the 1980's, our economy will continue to be open to international markets. Trade during the Eighth Five-Year Plan will grow about 40 percent. Bulgaria will be an even more sought-after and preferred economic partner of socialist and nonsocialist countries on all the continents.

Specialists Help Developing Countries

Sofia IKONOMICHESKI ZHIVOT in Bulgarian 9 Sep 81 p 9

[Article: "Preferred Specialists"; page prepared jointly with SOFIA PRESS AGENCY]

[Text] For three decades now Bulgarian specialists have been working worldwide as envoys of our socialist homeland.

By their selfless labor and worthy deeds they establish the name of Bulgaria as an advanced country with a significant scientific and technical potential, ready sincerely and unselfishly to help any country that needs scientific and technical assistance. You may encounter them in Europe and the Far East, in Equatorial Africa and Latin America, in the Arab countries. Their destinations are primarily the developing countries where they are taking part in the creation of their new national infrastructure, in the reorganization and development of their backward agriculture, industry, transportation and communications, in the discovery and utilization of their natural resources, in the building of a modern educational and health-care system, in the development of science, art, culture and sport.

This highly impressive and prestigious activity, which proves by deeds Bulgaria's love of peace and its endeavor to cooperate on an equal and long-term basis, is one of our important international achievements. It would be impossible without the systematic training of a large (on her scale) force of highly skilled specialists during 37 years of socialist construction. It now numbers over 275,000 people with a higher education (in 1956 there were fewer than 70,000 people with a higher education in our country) and approximately 600,000 with a post-secondary and secondary special education (as against 92,200 a quarter of a century ago).

Bulgarian specialists are sought-after and preferred associates for expert, consultative and production work in scores of countries on all the continents. There

are so many requests for Bulgarian specialists that they cannot be met. Several Bulgarian organizations, including those involved in engineering activity, are engaged in rendering scientific and technical assistance to other countries by making qualified specialists available to them. One of the best known is Technoimpex, which sends abroad specialists in various fields—primarily engineering personnel, teachers in higher and secondary educational institutions, agricultural and other experts and advisers. Numerous Bulgarian medical personnel and whole hospital staffs, consultants and teachers in higher medical institutes in other countries are provided by Medexim, which is under the Ministry of Public Health.

After the Soviet Union where the largest group of Bulgarian specialists and workers are employed in building, for the most part, major integration projects, Libya ranks second in the number thereof. Throughout the country our engineering and technical, medical and agricultural cadres are planning and building civil projects, staffing hospitals and polyclinics and are participating in the execution of important agricultural and other projects of the Libyan government. Ranking third is Cuba, through which thousands of our agronomists, land reclamation engineers, civil engineers of various specialties, artistic and cultural workers have passed during the 20 years that Bulgaria has been giving her scientific and technical assistance.

Bulgarian agronomists, horticulturists and other agricultural specialists are now passing on their advanced experience to Mexican agriculture. Many Bulgarian specialists in different fields, including teachers in higher educational institutions and secondary schools, have worked and are now working in Algeria, Iraq, Syria, Tunisia, Morocco, Nigeria and recently in Angola, Mozambique, Ethiopia and other developing countries.

Construction on Four Continents

Sofia IKONOMICHESKI ZHIVOT in Bulgarian 9 Sep 81 p 9

[Article: ". . . And Construction Projects on Four Continents"; page prepared jointly with SOFIA PRESS AGENCY]

[Text] This year marks the 25th anniversary of Bulgarian construction abroad—activity which has made and is making an extraordinarily great contribution towards publicizing the name of our socialist homeland throughout the world.

For a quarter of a century many civil projects in a number of countries in Europe, Asia, Africa and Latin America have been planned and built by Bulgarian specialists—worthy heirs of the renowned master Kolyu Ficheto. These are lasting monuments of our friendship and collaboration with the peoples of the Soviet Union and other socialist states, of the developing countries and of some Western states.

The construction and installation activity performed by our fellow countrymen on Soviet soil is on the widest scale. Several score thousand Bulgarian builders, installation men and specialists, kept together in their own self-contained groups under Soviet construction and installation organizations, are working on

major integration and other important civil projects in various republics and regions of the immense Soviet land. They participated actively in building the Arkhangel'sk paper and pulp combine and the Drushba [Friendship] main gas pipeline; they are participating in building the Ust'-Ilimsk lumber industry complex, plants for the oil and gas industry and in other industrial spheres, housing tracts, cultural and domestic-services projects etc. In return for this construction activity, which will expand in the years ahead, our country receives additional valuable industrial raw materials.

The 25th anniversary of our foreign construction work is linked most directly with the specialized economic trust Technoexportstroy. It has a staff of several thousand workers and specialists, a modern production and technical base, its own transportation, and agencies in a number of European, Asian and African states. Its beneficent activity for improving the living conditions in many cities and villages was singled out for a high international award in 1975.

On the occasion of the anniversary the director general of the trust, Engineer Marin Dzhermanov, made a statement to a representative of SOFIA PRESS AGENCY: "The first significant project was the grain elevator built in the Syrian city of Latakia in 1956. Then came construction projects for irrigation and water supply systems in Syria, Iraq, Libya, Cyprus and other countries, seawater desalination facilities in Kuwait, international airfields in Baghdad, Tripoli and other cities, superhighways and bridges mainly in Iraq and Syria, sport complexes in Tunisia and Libya, a national theater in Lagos, electric power stations, petroleum refineries, hotels, housing and other projects in more than 20 countries. I want to emphasize that our plans envisage that our construction territory will expand. Moreover, that a number of world-famous Western construction and installation companies are ready to collaborate with us. This demonstrates that Technoexportstroy is a sought-after and desired partner, a prestigious name. We shall also expand joint activity with kindred organizations of our sister CEMA-member countries."

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CSO: 2200/2

CONSTRUCTION OF NEW STEEL PLANT NEAR BURGAS BEGUN

Sofia ECONOMIC NEWS in English No 6, 1981 p 5

[Text] --One of the biggest projects under the 8th Five-Year Plan.

--Projected annual output: one mln tons of construction and high-grade rolled section steel.

--Phase One to come on stream by 1985.

In April 1980, the Council of Ministers issued a decree for the building of a new iron and steel works near the city of Bourgas, with a view to meeting more fully the domestic and export needs for rolled metals, high-grade and special steel and metaloceramics. Alongside the facilities in Pernik and Kremikovtsi, the new works will be the third base of ferrous metallurgy in this country.

The building of this major project of the Eighth Five-Year Plan has already started 18 km west of Bourgas, on an area of 200 hectares. Some 12 mln cubic metres of land mass will have to be moved by powerful machines in the course of building operations.

The new works will have a projected annual capacity of about 1 mln tons of construction and high-grade rolled section steel. It will incorporate a number of key mills, most prominent of which is the Rolled Steel Mill 300, with capacity 800,000 tons per annum. The installations for the direct reduction of the ore will have an annual capacity of 1 mln tons, and the electric furnaces and shops for continual smelting and processing will be with an annual capacity of 900,000 tons. There will also be a complex of mills for small-, medium- and large-size high-grade rolled steel, including equipment for thermal and mechanical processing. The annual capacity of that complex will be 400,000 tons.

Alongside these main facilities, the works will include repair, energy-producing and other auxiliary shops. There are also blueprints for the development of the infrastructure, with special emphasis on transport and port facilities, temporary electric supply, industrial and household water supply, railroad and road links to the construction site, etc. The existing port will be modernized to receive deep-keel coal carriers.

The new iron and steel works are being built with broad participation by the socialist countries members of the CMEA and other states with a developed metallurgy. The first phase, Mill 300, has been designed and is being delivered by the GDR, with major participation by Bulgarian machine-builders. Other equipment will be delivered by leading West European firms.

The Government programme for the further development of Bulgaria's ferrous metallurgy will allow the country to expand its ties with the metallurgy and machine-building industries of the socialist countries and with companies making metallurgical equipment and high-grade metals in the non-socialist states. Conditions are at hand for Bulgaria's machine-building plants to participate in the joint production of equipment for the new works. At the same time, opportunities are opening for the exchange and export of metal products, together with joint output and specialization with other metallurgical companies.

Phase One of the Bourgas Iron and Steel Works, Mill 300, is scheduled to come on stream by 1985, and the entire complex is to be completed by 1990.

CSO: 2020/1

BRIEFS

SLOVAK HARVEST ESTIMATES--The recent heat wave has accelerated the ripening of grain crops but has also caused 10-20 percent lower yields than in past years. According to estimates, this year's grain harvest in Slovakia will be about 500,000 tons below last year's level. So far about 93 percent of grain crops have been harvested in Slovakia, leaving about 50,000 hectares unharvested. [AU141919 Prague ROLNICKE NOVINY in Slovak 13 Aug 81 pp 1-2]

CEREAL PRODUCTION--Despite the greatest agrotechnical effort, the tasks for densely sown cereal crops in East Slovakia were not fulfilled in the sixth 5-year plan. The rains, floods and drenching of hundreds of thousands of hectares in the region last year led to a 30-35 percent drop in grain crop production, especially in the East Slovak lowlands. The tasks for the sixth 5-year plan were fulfilled only 91.2 percent; a total of 2,767,846 tons of grain were produced: that is 226,260 tons less than planned, even though 16.7 percent more than in the fifth 5-year plan. [Bratislava PRAVDA in Slovak 19 Aug 81 p 2]

BRNO ENGINEERING FAIR RESULTS--At the 23rd international engineering fair, which ended in Brno on 16 September, Czechoslovak foreign trade enterprises concluded export contracts exceeding KC\$13.5 billion with their trading partners from dozens of foreign countries. The major part of that trade volume will go to the socialist countries. CSSR imports will amount to KC\$6.6 billion, the greater part of them coming from the CEMA countries. [Prague RUDE PRAVO in Czech 17 Sep 81 p 2]

SOVIET GAS DELIVERIES--Prague 14 Sep (CETKA)--The gas supply network in Czechoslovakia could be expanded to 25,000 kilometers due to big increases in Soviet natural gas deliveries, which doubled in the 1975-1980 period. The increased deliveries and the transit of gas across Czechoslovakia required the construction of pipelines. The transit gas pipeline has been completed to carry 37,000 million cubic meters a year, and works continues on the "consortium" pipeline which is to be completed in 1984. Since maximum supplies of the imported gas are [words indistinct] the summer and consumption is highest in the winter, the building of storage tanks is an imperative. The present capacity of 1,700 million cubic meters of gas will be gradually expanded. The gas supply system is a firm part of the Czechoslovak energy system and supplies are steady both to industry and households. [Text] [LD150240 Prague CTK in English 1130 GMT 14 Sep 81]

PROTOCOL WITH VIETNAM--Prague, 14 Sep (CETKA)--Czechoslovak Minister of Labour and Social Affairs Michal Stancel and Vietnamese Minister of Labour Dao Thien Thi signed here Monday an operational protocol on cooperation between Czechoslovakia and Vietnam in the sphere of temporary employment of Vietnamese workers connected with further training in Czechoslovak enterprises in 1982. [Text] [LD150240 Prague CTK in English 1952 GMT 14 Sep 81]

VIETNAMESE LABOR MINISTER--Prague, 14 Sep (CETKA)--Czechoslovak Deputy Premier Vaclav Hula received here today Dao Thien Thi, minister of labour of the Vietnamese Socialist Republic, currently on a visit to Czechoslovakia. They discussed economic cooperation between the two countries, concerning especially special training of Vietnamese workers in Czechoslovakia. [Text] [LD150240 Prague CTK in English 1517 GMT 14 Sep 81]

GERMAN DEMOCRATIC REPUBLIC

CROP, WEATHER REPORT PUBLISHED FOR JULY 1981

East Berlin FELDWIRTSCHAFT in German Vol 22 No 9, Sep 81 p 416

[Article by Dr D. Krumbiegel, GDR Meteorological Service, Central Weather Bureau, Potsdam]

[Text] The Weather in July 1981

Up to the 14th air temperatures stayed above normal, but then it became unseasonably cool to the end of the month. First there was not much rain, but in the second and third 10-day periods it rained a lot, in some regions quite heavily.

Initially, daytime average air temperatures deviated but slightly from the norm. Anomalies between the 7th and 11th ranged between +3 and 6+K. It was particularly cool at the end of the second 10-day period (-4 to -7K) and in the middle of the third (-3 to -6K). In the second half of the month the northern GDR got better temperatures than the southern. Initially, daytime maxima rose to 20°C, then to 25°C, and around the 10th, to between 25 and 30°C. Starting in midmonth, the 20°C threshold was crossed still during a few days. In part, maxima did not even reach 15°C. Minima ground temperatures mostly ranged between 10 and 15°C. Values between 5 and 10°C occurred only regionally for a few days. Duration of sunshine was fairly normal only in the first 10-day period. The southern part got very little sunshine in the second 10-day period, the northern, after the 25th.

The first 10-day period was too dry. Between the 7th and 10th, there was no rain at all. But starting on the 11th, there was not one day that was completely without rain somewhere in the area. The abundance of rain clearly increased with midmonth. Especially large daily volumes of between 10 and 25 mm were recorded on the 18th and 19th in the southern part, on the 20th, still in Dresden Bezirk. The daily volumes recorded by selected stations for the 18th/19th/20th respectively, in mm, were as follows: Dresden-Klotzsche 35/49/09; Goerlitz 42/73/53; Herrnhut 59/105/77. On the 26th, they ranged, widespread, between 10 and 30, regionally between 30 and 60, and locally around 60 mm. For the remainder of the time frequent showers provided a regionally uneven distribution yet locally yielded between 5 and 25 mm almost every day. At the end of the month rain became less heavy. Altogether the southwest plains and the eastern half of Neubrandenburg Bezirk were supplied with the least amounts. Relative air humidity averages dropped only during the second 5-day period below 70% widespread and otherwise mostly ranged between 70 and 85, in the last 10-day period, often around 90%.

Weather Data for July according to the Chief Climatological Office Potsdam

1. Monthly Air Temperature Averages and Deviations from the Norm

Schwerin	16.5°C -1.0K	Erfurt	16.1°C -0.7K
Neubrandenburg	16.4°C -0.7K	Leipzig	17.3°C -0.7K
Potsdam	17.3°C -0.8K	Goerlitz	16.7°C -0.8K

2. Average Precipitation according to Bezirks

Rostock	84 mm = 117%	Halle	49 mm = 70%
Schwerin	79 mm = 107%	Erfurt	52 mm = 69%
Neubrandenburg	53 mm = 70%	Gera	57 mm = 71%
Potsdam	74 mm = 101%	Suhl	74 mm = 91%
Frankfurt	72 mm = 97%	Dresden	264 mm = 284%
Cottbus	146 mm = 192%	Leipzig	84 mm = 102%
Magdeburg	51 mm = 75%	Karl-Marx-Stadt	132 mm = 132%

3. Evaporation Potential

Northern bezirks	70...80 mm
Central bezirks	75...85 mm
Southern bezirks	55...75 mm

Soil, Crop and Labor

Surface soil temperatures rose in the first 5-day period, ranging between 20 and 25°C from the 6th to the 14th widespread. In the second half of the month the soil cooled off, with values fluctuating mostly around 17°C. The subsoil temperatures followed those in the surface soil, sometimes with a slight delay. By the end of the month from 15 to 17°C were recorded at a 50-cm depth, from 15 to 16°C at a 100-cm depth (locally, up to 17°C). The ground water level dropped generally up to midmonth, in Magdeburg, Halle, Erfurt and Gera Bezirks, still up to the 20th or even 25th. Then it rose again because of the rain that followed. Except for Rostock and Schwerin Bezirks, ground water, beginning at midmonth, came to around or below 50 percent of useable field capacity (0 to 50 cm depth below turf). Potsdam, Frankfurt, Cottbus, Halle and Erfurt Bezirks and Uckermark (northern Brandenburg) got the worst of it, where values often came to below 30 percent of useable field capacity. By the end of the month the water supplies for the soil and the crop were generally stabilized, except for the southwestern plains (not enough water) and Dresden Bezirk (too much). Soil climatic conditions for beds and nutrient mobilization were held back widespread up to midmonth, and afterwards regionally, by water shortage. They improved, as did the workability, with the rain in the second half of the month. Regions that had been most heavily drenched temporarily experienced air shortage, pools and acreage inaccessibility. Erosion damage also occurred.

The weather in the first 10-day period speeded up ripening processes, which then became halted because the air temperatures were too low and, from midmonth on, because there was much more rain. A 5 to 10-day phenological prematurity was preserved nevertheless. Vegetation processes, first held back by the scarcity of water, got much of a boost when it started raining again at midmonth. That

was true mainly for varieties that do not need much heat such as forage crops (except for maize, especially late seedings), potatoes, and cabbage and root produce. Yet it must be assumed that the much reduced sunshine in the second and third 10-day periods is likely to have considerably reduced assimilation activity. As there was much rain at the end of the second and in the middle of the third 10-day periods and wind velocity was partly very high, grain, especially winter rye, bent over. That greatly jeopardized the full growth, which was rather held back to begin with, a diminished thickness of crops coming with it. Outgrowth tendencies also increased. The root crop showed increasing late weed formation. Fungus and weeds had hardly been encouraged until midmonth, thereafter all the more so.

The winter barley harvest was started 5 to 10 days ahead of time in the middle of the first 10-day period and was finished in the second 10-day period, the weather being relatively good, except in the coastal areas and the southern bezirks. The third 10-day period brought very unfavorable harvesting-threshing conditions, greatly holding back the continuation of the grain harvest and the straw gathering. By the end of the month, approximately one-fourth of the grain and 70 percent of the winter rape were in. Ensilage and hay preparation became very difficult around midmonth on account of the unfavorable drying conditions. We also had to take stronger counteraction against potato rot. For sowing summer catch crop conditions were most favorable. Irrigation measures were needed only in the southwestern plains still after the 20th.

Meteorological Projections for Farming in September 1981

Since the weather facilitated rot, it is of great importance to do something against that on the potato fields. Mechanical measures are preferable against late weed formation. Digging the potatoes in good time counters tuber infections as higher ground temperatures keep the damage rate down and higher air temperatures help the crop recover from damage. The phenological lead time offers good conditions for abiding by optimum sowing time frames for the winter crop.

5885

CSO: 2300/17

WEST GERMAN ANALYSES OF GDR AGRICULTURAL PROGRESS PUBLISHED

Developments During 1976-1980

Cologne DEUTSCHLAND-ARCHIV in German Vol 14 No 5, May 81 signed to press 28 Apr 81
pp 474-482

[Article by Karl Hohmann, agricultural engineer, scientific consultant, Agricultural Economics Department, Research Office for All-German Economic and Social Questions, Berlin: "On the Development of GDR Agriculture During the 1976-1980 Five-Year Plan"]

[Text] In the GDR, the turn of the year 1980-1981 marked the end of a planning period characterized by increasing strains on the foreign trade, the extent of which could not be calculated accurately when the 1976-1980 Five-Year Plan was prepared. In the agriculture, this was further complicated by the fact that the profit losses resulting from the 1976 summer drought made it impossible, right from the start, to achieve the high rates of growth strived for. Extreme weather conditions prevailed to a certain extent during the rest of the five-year plan, especially during the winter of 1978-1979 and the cold and wet summers of 1977 and 1980; they affected also the agricultural production of the FRG, although it is less susceptible to the weather. In addition, the operational separation of animal and plant production which took place under this plan resulted in additional "frictional losses" in the technical organizational sector; these, in turn, led to considerable personnel and institutional additional expenditures for production cooperation councils, agreements and contracts which made it possible to integrate at a higher level the management of previously specialized agricultural enterprises.

On the Structure of Enterprises

In the wake of the transition to industrialized methods of production, and of the resulting concentration and specialization of agricultural production, the number of agricultural enterprises was further reduced since 1976 (see Table 1). At mid-1980, there were just under 5000 operational units left in the GDR, including those producing fruit, vegetables and ornamental plants. Only 1475 of these enterprises were involved in plant production, whereas animal production was concentrated in 3500 enterprises.

In connection with the development of cooperative facilities into economically and legally independent production units, the average land-endowment or livestock herd of the enterprises increased further. Whereas the average acreage cultivated in 1974 by a cooperative crop production department (KAP) was still about 3700 hectares, the 1979 land endowment of an LPG (plant production), of a ZBE (P) (inter-

Table 1. Agricultural Enterprises in the GDR - 1976, 1978 and 1980

(1)	Enterprises	1976	1978	1980
(2)	VGB (P)	25	114	121
(3)	VGB (T)	442	345	324
(4)	VGB (M)	20	21	20
(5)	Vollständige Betriebe insgesamt	487 (467)	480 (487)	465
(6)	KAP/BBE (P)	912 (1024)	414 (372)	85
(7)	BBE (T)/BBE (T)	220	220	220
(8)	Kooperative Einrichtungen insgesamt	1572	750	322
(9)	LPG (P)	220 (191)	721 (722)	1017
(10)	LPG (G)	0	0	21
(11)	OPG	227 (241)	227 (217)	213
(12)	LPG (T)	340 (347)	2271 (2212)	2244
(13)	Genossenschaftliche Betriebe insgesamt	225	422	412
(14)	Landwirtschaftliche Betriebe insgesamt	2224	5427	4975

1. Including state farms producing fruit, vegetables and ornamental plants.
2. State farms engaged in animal production and state farms with a traditional production structure.
3. Animal production LPG's, including Types I-III LPG's.

Sources: "DDR-Landwirtschaft kurz beleuchtet," [An Overview of the GDR Agriculture], Berlin (East) 1977, p 7 - "Die Volkswirtschaft der DDR," [The GDR National Economy], Berlin (East) 1979, p 164 - PRESSE-INFORMATIONEN, No 64, 1980, p 5f.
In parentheses: Data from the Statistical Yearbook of the GDR, 1979, p 156.

Key:

- | | |
|--|--|
| 1. Type of enterprises | 8. Cooperative facilities, all together |
| 2. State farms (plant production) ¹ | 9. LPG (plant production) |
| 3. State farms (animal production) ² | 10. LPG (G) [expansion unknown] |
| 4. State farms (industrial fattening combines) | 11. Horticultural producer cooperative |
| 5. State farms, all together | 12. LPG (animal production) ³ |
| 6. Cooperative crop production departments/Interplant facilities (plant production) | 13. Cooperative enterprises, all together |
| 7. Intercooperative facilities (animal production)/Interplant facilities (animal production) | 14. Agricultural enterprises, all together |

plant facility, plant production] or of a KAP averaged about 4800 hectares of agricultural area. The livestock herd per animal production enterprise increased from about 1250 cattle units¹ in 1976 to about 1500 in 1979.²

The development of plant and animal production enterprises is not merely a formal organizational or legal step; rather it entails significant social and economic changes; this is already evident in the model statutes adopted in 1977, which not only do not restrict the rights of cooperative members, but also give LPG workers and employees the privileges which, until then, had been reserved to cooperative members (personal households, election of the executive committee, etc.). The new LPG's, which have little left in common with the enterprises which existed under that name in the 1960's, "correspond to a higher level of development of cooperative property. Compared to the former LPG's, they represent a higher degree of production socialization and are getting closer to national ownership."³

This "approaching closer" has taken concrete forms, especially in plant production, so that "in the past few years, 86 state farms have been developed from KAP's..., in which national ownership predominated."⁴

Further, the industrialization of plant production enterprises has led to the constant development of new and extreme work peaks which, as a rule, can be handled only through the use of a non-agricultural labor force (students, forestry and industry workers, members of the National People's Army), and/or the seasonal use of animal caretakers in plant production enterprises. As a counterpart, in its off-season, the labor force of plant production enterprises is sent to the forests, to kreis enterprises for agricultural equipment (KfL's), to animal production enterprises, etc. Thus, a total of 363,000 work days were performed in state forest enterprises⁵ in 1980, and in the winter of that same year 5500 cooperative farmers from plant production enterprises were employed in the KfL's.⁶

This exchange of labor forces between enterprises which are sometimes located far from one another and are mostly involved in different types of production makes it increasingly necessary "for cooperative farmers to learn a second job."⁷ In addition, it also requires "much comprehension and goodwill on the part of cooperative farmers and workers"⁸ who, in the course of the year, may be shuttled not only between the five to eight villages belonging to their enterprise, but also between agricultural and non-agricultural activities.

In addition, the creation of ever larger operational units has led to an exaggerated increase in the distances over which persons and goods must be transported within an enterprise. In 1978, in agriculture, the average distance of personnel transportation was about 12 km⁸ (in plant production as well as in animal production enterprises); the average distance of transportation for fertilizers, forage and stable manure had increased from 4 km in 1967 to 8 km in 1977.⁹

The fact that valuable time must be used for this kind of transportation and that, at the same time, the proportion of Diesel fuel used for transportation and transloading (about 40 percent)¹⁰ has become almost equal to that used for all soil cultivation, crop harvesting and machines "on the road," has led many enterprises to question whether most work and production brigades (ploughing and harvesting

brigades, and fodder, root crop and grain brigades) which are created according to the needs, would not be better replaced by permanent brigades organized on a territorial basis. The members of these brigades would be taken from among the inhabitants of one or two of the villages of the LPG considered and would carry out all the work which need be done, from soil cultivation to harvesting, in the restricted territories which would be assigned to them. This would also facilitate the calculation and distribution of premiums according to performance, and would encourage the farmers to feel responsible for "their land" (to the extent that such a responsibility can still exist). This has been expressed more clearly by the director of the Koenigsee cattle raising ZGE [intercooperative facility] in a "reader's letter" to the NEUE DEUTSCHE BAUERNZEITUNG: "With respect to the organization of plant production strictly according to product and technology, I often wonder who is actually responsible for the soil. What I mean is that one specialized troupe can always put the blame on another."¹¹

The lack of responsibility of cooperative members, which results from their increasing alienation from "their land" due to the constant creation of new types of organizations and management structures in production units which are steadily becoming larger and harder to oversee, is a problem which has been and remains one of the decisive obstacles to definite productivity increases in the agricultural sector of the GDR.¹²

On the Importance of Agriculture in the GDR

Compared with other highly-developed national economies, that of the GDR still relies to a large extent on agriculture and forestry. In 1979, 13.4 percent of the labor force, and 12.7 percent of the capital goods of all production sectors were required by these two sectors, although they contributed only 9.5 percent of the net product (see Table 2). At the same time, the relative stagnation of the net product they yield, together with the insignificant reduction in the labor force they employ, led, during the late 1970's, to a further widening of the productivity gap between those employed in the industry and those employed in agriculture. Whereas, for all production sectors, the net product per person employed in 1979 was about 14 percent higher than in 1975, that increase was only about 3 percent in the forestry and agricultural sectors. True, the gross product of agriculture and forestry for 1979 was 11 percent higher than in 1975, but this is almost exclusively due to the exaggerated increase in production consumption which rose from about 62 percent of the gross product in 1975 to almost 66 percent in 1979. The steady increase in the proportion of previous industrial work involved (machines, energy, fertilizers, etc.), however, is a typical phenomenon in modern agriculture and should not be considered as specific to the path of agricultural "industrialization" chosen by the GDR.

The fact that the share of agriculture and forestry in the total capital goods of the production sector remained almost constant, although their share in the investments showed a marked tendency to decline, can be explained only by the fact that the depreciation time adopted for buildings and architectural structures does not at all reflect their actual service life¹³ and that, therefore, the total capital goods of the agricultural and forestry sectors are overvalued.

Table 2. Agriculture and Forestry in the GDR National Economy - 1975-1979

(1) Parameter	1975	1976	1977	1978	1979
(2) Net product (Mill. M)	16002	14228	15477	15886	16120
1975 = 100	100	89	96	99	101
(3) Anteil ¹	11,1	9,5	10,1	9,9	9,5
(4) Beschäftigte	886	878	874	877	878
1975 = 100	100	98	98	98	98
(3) Anteil ¹	13,9	13,6	13,5	13,5	13,4
(5) Grundmittelbestand (Mill. M)	47883	50288	52670	55378	57880
1975 = 100	100	105	110	116	121
(3) Anteil ¹	13,1	12,9	12,9	12,9	12,7
(6) Investitionen (Mill. M)	4879	5089	5301	5190	5000
1975 = 100	100	102	107	106	100
(3) Anteil ¹	14,7	14,0	13,9	13,3	12,7
(7) Bruttoprodukt (Mill. M)	42802	41719	44702	45870	47284
1975 = 100	100	98	105	108	111
(3) Anteil ¹	11,5	10,7	11,0	10,8	10,8
(8) Produktionsverbrauch (Mill. M)	28800	27481	28825	30276	31114
1975 = 100	100	95	100	114	117
(3) Anteil ¹	11,8	11,4	11,4	11,5	11,4

1. In percent of the production sector.

Source: Statistical Yearbook of the GDR, 1979 and previous years, and Statistical Handbook of the GDR, 1980.

Key:

1. Parameter
2. Net product (million marks)
3. Proportion¹
4. Number of persons employed
5. Total capital goods (million marks)
6. Investments (million marks)
7. Gross product (million marks)
8. Production consumption (million marks)

Besides, these monetary evaluation criteria are of limited usefulness when it comes to making comparisons with other branches of the national economy, especially so since the difference in the price structures of industry and agriculture, and the fact that prices are determined centrally in accordance with the guidelines of the GDR leadership, do not facilitate clear-cut statements in this respect. Although the prices of agricultural products have not changed since 1976, and although the means of production have been frozen at the 1976 price levels through subsidies from the state budget (5.156 billion marks in 1979),¹⁴ the prices of industrial products have varied several times in the past few years (usually upward).

On the Five-Year Plan 1976-1980

The priority objective of agriculture under the last five-year plan was to increase the total yield of plant production over the period 1976-1980 so as to reach 120 percent of the average of the previous plan.¹⁵ The plan focussed on increasing grain, fruit and vegetable production, and potato and sugar beet yields, "to ensure that our national production will increasingly contribute to feeding the population and supplying the industry with raw materials."¹⁶

Apart from the fact that, until now, rates of growth like those set for plant production have never been achieved in the GDR, the weather conditions prevailing during the summer of 1976—which we have already mentioned—had rendered the five-year plan objectives absurd even before the plan had been published. In addition, a total investment increase of about 11 percent over the previous plan was intended, among other things to enable doubling the areas on which the soil should be improved, to procure many more, and more efficient machines and equipment, to accelerate straw pelletization and the production of mixed feed, and to achieve a decisive progress in the "industrialization of animal production." Such a disproportionate gap between planned input and expected output also amounts to programming failure in achieving the objectives assigned; it should have no place in a "planned-development national economy."

In contrast with plant production, relatively small rates of growth had been anticipated in animal production. This was intended to reduce the dependence of animal production on protein feed and feed grain imports (which had considerably increased during the early 1970's), especially as these had to be obtained from capitalist countries or on the world market, and paid for in hard currencies. For the same reason, it had been intended to raise straw and whole-plant pelletization to 3.3 and .63 Million tons respectively, and to increase the legume acreage.

On Plan Fulfillment

As is shown on Table 3, the measures taken under the five-year plan to increase the yields which, broadly understood, also include the supply of mechanization instruments, have been implemented only partially. Whereas the period 1976-1980 saw increases of about 14 and 31 percent over the previous plan in the acreages brought respectively under subirrigation and sprinkler irrigation, the objectives set, involving total acreages averaging respectively 104,000 and 64,000 hectares, were realized only in a proportion of 2/3. The marked decrease in new acreage brought under irrigation in 1979 and 1980 may also be due to the fact that, following the speeding up of the 1978 silo construction program, the work priorities for soil improvement enterprises had been revised.

In view of the increased transportation expenditures of the large agricultural enterprises, and of the relatively high (30 percent) share held by truck transportation in their internal transportation expenditures,¹⁷ a speeding up of the construction of the farm-road system is urgently needed; it has not even been attempted yet, as can be seen from the both meager and declining performances in road construction.

Table 3. Results of the 1976-1980 Five-Year Plan for Selected Previous Work

(1) Maßnahme	1976	1977	1978	1979	1980	Plan 1976/80
(2) Maßnahmen:						
(3) Bewässerungsflächen (1000 ha)	81,8	85,0	88,9	87,8	48,1	8 104,8
(4) darunter:						
(4) Sprinklerflächen (1000 ha)	44,5	47,3	48,8	48,4	27,5	8 84,0
(5) Wirtschaftswegbau (km)	871	888	778	783	0	0
(6) Auslieferung von Düngemitteln (1000 t Rohstoff)						
(7) Stickstoff	754,8	778,8	784,0	747,8	0	840
(8) % der Produktion	87,3	91,8	87,8	85,4		
(9) Phosphor	484,8	487,8	488,8	410,4	0	880
(8) % der Produktion	100,4	108,8	104,4	101,3		
(10) Kali	622,8	471,7	488,1	548,8	0	880
(8) % der Produktion	18,7	14,8	13,7	18,2		
(11) Maschinenserverhaltung (Stück)						
(12) Traktoren	8788	8888	8411	7888	0	8 8880
(13) Mähdrescher	1880	813	381	278	0	8 1410
(14) Schwadtmäher	0	788	488	288	0	8 1080
(15) Einstichschneider	0	1080	887	384	0	8 1080
(16) Produktion von Futtermitteln (1000 t):						
(17) Strohpellets	1413	1482	1384	1380	> 1000*	2380
(18) Trockengrün	888	788	778	0	0	788
(19) Ganzpflanzen	282	113	172	0	0	880
(20) Mischfutter	4887	4888	5138	5888*	0	8138

1. Estimated - 2. Planned for 1979

Sources: Law on the Five-Year Plan (see Footnote 15) - Statistical Yearbook of the GDR, 1979 - Statistical Handbook of the GDR, 1980 - Collective authorship: "Die Landwirtschaft der DDR," [The Agriculture of the GDR], Berlin (East) 1980, as well as Plan Fulfillment Reports.

Key:

- | | |
|--|-----------------------------------|
| 1. Measure | 11. Machines available (units) |
| 2. Soil improvements | 12. Tractors |
| 3. Irrigated areas (1000 hectares) | 13. Combines |
| of which: | 14. Harvesters |
| 4. Sprinkler-irrigated areas (1000 hectares) | 15. Precision field straw-cutters |
| 5. Farm-road construction (km) | 16. Feed production (1000 tons): |
| 6. Fertilizer deliveries (1000 tons net nutrients) | 17. Straw pellets |
| 7. Nitrogen | 18. Dry green fodder |
| 8. Percent of production | 19. Whole-plant fodder |
| 9. Phosphorus | 20. Mixed fodder |
| 10. Potash | |

Although the mineral fertilizer consumption of the GDR agriculture had to be considered extremely high already in 1975—even compared with West European countries—the five-year plan provided for increases in nitrogen and phosphate consumptions (of respectively 260,000 and 90,000 tons), whereas potash consumption was to be reduced by 57,000 tons (approximately 8 percent). During the last five-year plan, however, raw material cost increases and the resulting burden placed on the foreign-trade balance forced to increase the exportations of the potash salts mined in the GDR and of its nitrogen fertilizer production, and to reduce its raw phosphate importations, so that—in spite of the existing production capacity—domestic supply could not be ensured as originally planned. In the case of nitrogen fertilizers, there was even a reversal of trade: The GDR, still a net importer of nitrogen fertilizers under the 1971-1975 plan, became a net exporter in this sector—to the prejudice of its own agriculture; the prices it paid for soviet oil and natural gas, being lower than world-market prices, definitely gave it a competitive edge over those producers who depended on OPEC. The supply of harvesting combines and machines for the production of raw fodder showed a tendency to decline; in addition it remained well under the planned estimates,¹⁸ in spite of a steady expansion of the production of agricultural machinery. Here too—and especially after 1977—it appears that certain machines which had been intended for the GDR agriculture were reassigned to be exported. This is corroborated by the fact that the smallest deficits of the plan (approximately 12 percent) are recorded for tractors which, as a rule, are imported under contractual agreements, and that, in addition, these deficits are partly offset by the high performances of the 22,255 tractors (i.e. 82 percent of all imported tractors) imported from the USSR during the period 1976-1979. By comparison, the number of GDR-produced units supplied to the agriculture decreased from 2736 in 1976 to 1060 in 1979, i.e. by 61.3 percent.¹⁹

Even if one considers the increase in the average horsepower performance per tractor (from 55.7 HP in 1976 to 62.5 HP in 1979),²⁰ given a total of 140,000 tractors in the GDR agriculture the average reproduction rate is a good 12 percent per year, which corresponds to a theoretical required service life of about 16 years; this rate is much too small and leads to an exaggerated proportional increase in service and maintenance costs which, already in 1977, when they represented 18 percent of the gross value of the mobile machinery, were about twice as high as the depreciation cost of these machines.

It appears that, as early as 1977, increased energy costs forced a revision of the initially planned increases in straw-pellet production and whole-plant pelletization which were to have reached 3.3 million tons and 630,000 tons respectively by 1980. First, no improvement in feed value can be achieved through straw pelletization without soda lye or ammonia hydrolization; but, until now, only about 30 percent of the drying and pelletization facilities possess the necessary technical prerequisites. Then, the high amount of energy required to dry and pelletize straw and whole plants is out of proportion with the nutritional value added to the final product; this is also why the production of whole-plant corn pellets was abandoned.²¹

The deliveries of important intensifying products to the GDR agriculture, which, in certain respects, were insufficient and declined during the 1976-1980 plan, have naturally affected agricultural performances (although we do not mean to imply

Table 4. Evolution of the Animal Production Productivity in the GDR - 1975-1979

(1)	Meat	1975	1976	1977	1978	1979
(2)	Milk yield ¹	3820	3798	3714	3888	3873
(3)	Beef cattle production ²	288	281	280	288	284
(4)	Pork production ³	12.8	12.7	12.7	12.4	12.4

1. Converted to 3.5 percent fat content.
2. Beef cattle production (steers and calves) in relation to the cattle herd at the end of the previous year.
3. Production of pigs for slaughter (including herd variations) in relation to the number of breeding sows at the end of the previous year.

Key:

1. Criterion
2. Milk yield¹ (kg/cow)
3. Beef cattle production² (kg of foodstuffs per cow)
4. Pork production³ (decitons of foodstuffs per breeding sow)

that increased fertilizer expenditures and more machines can replace a well-organized exploitation). When almost 10 percent of the sugar beet crop is not yet harvested by mid-December because of a lack of operational machinery, when 45 percent of all plant production enterprises engaged in sugar beet and potato cultivation are unable to observe the required rest periods already at the time of planting,²² declines in crop yields can hardly be avoided.

As we have already mentioned, compared with 1975, the planned rates of growth for the state production of slaughter animals (+ .6 percent), milk (+ 7.3 percent) and eggs (- .1 percent) were small or nil. But the fact that, during the period 1976-1977, the state production of slaughter animals declined to below the 1975 level cannot have been planned, no more than the decline in the productivity of the cattle (except the dairy cows) and pig herds (see Table 4). What we see here is first the lack of progress in reducing animal losses, the insufficient utilization of feed and the insufficient weight increases during the fattening period; then, the effects of yet unsolved veterinary problems, both medical and prophylactic, which occur in industrial animal production facilities.²³

After 1968, the creation of these facilities, requiring large investment, not only tied up funds which were urgently needed for the modernization of existing stables, and increased the lag in the working conditions of those employed in animal production, but it also brought about an increase in the number of animals kept in the GDR agriculture which, in part, exceeded the newly-built stable capacity.²⁴

The positive conclusion of the five-year plan, i.e. the fulfillment of the objectives set for animal production in the 1980 economic plan,²⁵ should not conceal the fact that, compared with the 1971-1975 plan, the overall evolution has been negative. The cattle and pig herds were respectively 7 and 19 percent larger in 1975 than in 1970, which corresponds to an increase of about 34 percent in the number of slaughter animals; but the increase in that number from 1975 to 1980 was only about 1 percent, although there were 3.4 percent more cattle and 12 percent more pigs. In other words, the production increase has been achieved exclusively through an exaggerated expansion of the livestock herd and not, as it should have been, through a higher average yield per individual animal.

The animal production enterprises are only partly responsible for this state of affairs. The difficulties and irregularities they have experienced in obtaining (raw) fodder, as a result of the operational separation of animal and plant production enterprises, and the small rate of increase in fodder importations compared to that in livestock herds at a time when overall yields in plant production remained stagnant, i.e. the relative shortage in the amount of feed available per animal, were not as a rule the result of anything animal production enterprises did, nor was there anything they could have done about it.

The careful reorientation of investments, which started after 1977 and continued with the resolution dated 8 May 1980,²⁶ and was intended to speed up the modernization of the existing stables and facilities, will certainly not increase significantly the livestock herd productivity, but it offers much better chances of increasing work productivity than a one-sided concentration on the creation of industry-like facilities. As Honecker said again at the 10th Session of the Central Committee in 1979: "Because, what seemed right 5 or 10 years ago often presents itself in an entirely new light now that economic conditions have been fundamentally altered."²⁷ In addition, it could offset the expected departure of superannuated personnel employed in animal production, and, without reducing production, reduce the overtime which, in these enterprises, amounts to 300 hours per employee. However, the actual causes of the unsatisfactory results, the insufficient productivity of agricultural production, would remain the same.

It is impossible to say whether Honecker had the five-year plan objectives for plant production in mind in his final address to the Ninth Session of the Central Committee (1978), when, referring to yields per hectare, he required: "The figures quoted in the plan must be figures that can actually be achieved."²⁸ Unquestionably, however, these objectives could not be achieved. And the fact that, under the last plan, the planned yield level of at least 46 decitons of grain units per hectare of agricultural area has not once been achieved or even approached, and that the highest yield per hectare to-date (44 decitons of grain units in 1974) dates back to the period preceding the final separation of animal and plant production, do not speak in favor of the agro-political concepts of the GDR leadership.

Among these results, which are not very positive as a whole, we can however note the development of differing trends. Although, on the average, about 4 percent more grain was harvested during the period 1976-1980 than during the period 1971-1975, the planned increase over 1971-1975, i.e. an average of .8 million tons of grain per year for 1976-1980, was achieved to the extent of only 41 percent (.33 million tons). Here--as in the case of per-hectare yields--it makes sense

Table 5. Comparison of the Results Obtained in Plant Production With the Minimum Objectives of the 1976-1980 Five-Year Plan and With the Results of the Years 1971-1975

(1)	Marken	1971/75 = 100.0		Plan = 100.0		Plan 1976/80		(12)
		1976/80	1977/80	1976/80	1977/80	absolut (11)	in % 1971/75	
(2)	Getreide:							
(3)	Getreide	103.8	103.2	98.1	97.3	8.5-10.5 MIL. t	103.2	
(4)	Hilfsfuttermittel	98.8	101.3	98.3	97.7	0.3-0.35 MIL. t	98.9	
(5)	Nachschärfung							
(6)	Getreide	98.9	101.4	98.5	91.9	41- 41 dt	110.5	
(7)	Kartoffeln	101.7	111.3	97.5	95.5	250-250 dt	116.4	
(8)	Zuckerrüben	98.1	102.9	70.6	62.0	350-350 dt	128.4	
(9)	Grün- u. Silomais	93.3	101.9	95.6	72.7	rel. 400 dt	140.1	
(10)	Feldfutter	117.7	125.3	98.1	104.4	rel. 300 dt	120.5	
	Weizen u. Weizen	118.0	121.4	98.3	99.3	rel. 300 dt	134.5	

1. Minimum objectives - 2. Fodder and edible legumes - 3. 1976-1979 -
4. 1977-1979

Sources: "Die Landwirtschaft in der DDR," [The Agriculture of the GDR], Berlin (East) 1978, p 73 - "DDR-Landwirtschaft kurz beleuchtet," [An Overview of the GDR Agriculture], Berlin (East) 1977, p 13 - Collective authorship: "Die sozialistische Intensivierung...", [The Socialist Intensification...], p 25 (see Footnote 1) - Author's calculations - Statistical Yearbook of the GDR, 1984, pp 176-177

Key:

- | | |
|-------------------------|-----------------------------|
| 1. Criterion | 7. Sugar beets |
| 2. Harvest size | 8. Green corn and silo corn |
| 3. Grains | 9. Field fodder |
| 4. Legumes ² | 10. Meadows and pastures |
| 5. Yields per hectare | 11. Absolute value |
| 6. Potatoes | 12. In percent |

(considering the particular conditions existing in 1976) to compare the results for 1971-1975 and the figures included in the plan for 1976-1980, not only with the results for the entire planning period, but also with those for the period 1976-1980 (see Table 5); the overall deplorable picture of an overwhelming under-fulfillment of the five-year plan objectives is, however, not much improved that way.

The figures indicated in the plan show that--compared with the average for the five years of the 1971-1975 plan--the grain yields per hectare were expected to increase relatively faster (+ 10.5 percent) than the total grain yield. In addition, the plan expected the legume crop to increase 2.5 times; this would have avoided a further increase in plant-protein fodder importations which had increased from .637 million tons in 1971 to .875 million tons in 1975, since these, like the grain importations, which followed a tendency to increase, can increasingly be obtained only from non-socialist countries and must be paid in

scarce foreign currencies. Considering that the grain acreage has increased by about 5.2 percent, and that the second and third best crops in the GDR history have been harvested during the last plan (9.8 million tons in 1978 and 9.6 million tons in 1980), the stagnation recorded in the yields per hectare is hard to understand, all the more so as the FRG's yields per hectare increased by 4.5 percent during the same period (1976-1980).

This phenomenon can be explained to a certain extent only if one considers that the sugar beet yields, although relatively low, are also stagnating, as are the potato yields, which are 30 to 40 percent lower than those of the FRG. Potatoes as well as sugar beets place high demands on the structure of the soil and its humus content. In addition, when not planted and tended at the right time, they respond with considerable yield decreases. If, however, as Grueneberg reports, about 50 percent of the GDR's farmland suitable for sugar beets shows some amount of soil compacting, if only 65,000 plants on the average are grown per hectare, and if many enterprises have sugar beet harvesting losses of between 30 and 35 percent,²⁹ if planting is done during the optimum period only 30 percent of the time, and if the winter furrows are ploughed too late on 50 to 75 percent of the sugar beet acreage,³⁰ then it is possible to draw definite conclusions even with respect to other crops. Add to that the fact that the harvesting capacities are calculated rather conservatively, which, in the case of grains, can quickly lead to yield decreases (losses, broken ears, overgrowing, premature sprouting). It is probably not without reason that, at the 13th Session of the Central Committee, the director of the Priborn plant production LPG, central committee member Fritz Dallmann, required "that the area assigned to each combine should not exceed approximately 130 hectares, less if possible."³¹ Furthermore, the consistent specialization of the enterprises, which resulted in considerable problems in the organization of crop succession, led in the end to the recognition that "the high concentrations of sugar beet crops between kreises and in farming enterprises is unjustified and unjustifiable for agricultural reasons," and must be abandoned.³²

On the other hand, the insufficient yield increases in corn crops, and the difficulties experienced in breeding early hybrid corns are to be blamed on the fact that sowing is usually late, since silo corn in the GDR is usually planted after the winter intercrops. For almost identical mass and energy yields per hectare cultivated, this way of growing silo corn results in production costs and labor and fuel expenditures which are respectively about 50, 80 and 43 percent higher than for main-crop silo corn.³³

The yields have markedly increased only on grassland and in field fodder cultivation, which must no doubt be considered as a significant success. In spite of the negative effects of 1976, the yields of these areas during 1976-1980 increased by about 16 and 17 percent respectively over those of 1971-1975, i.e. the yield increase indicated in the plan was almost achieved—even exceeded if one considers the average for 1977-1979. This is especially significant because, were it not for the productivity increases in this sector, the yield level for 1979-1980, as far as plant production is concerned, would have fallen below that of 1971-1975 and, due to the scarcity of foreign currencies and the inability of CEMA countries to supply grains, both animal production increases and livestock herd expansion would have been impossible.

Overall, during the last five-year plan, the GDR agriculture—especially in the plant production sector—has functioned more as a "brake to the overall economic development" than it has contributed to it. The reasons for that lie in part outside agriculture (upstream sectors) which, therefore, cannot really change them. But a decisive part may well have been played by the operational difficulties which resulted from the exaggerated specialization of agricultural production, and by the continued disregard for the simplest soil-cultivation requirements, neither of which can be neutralized by a socialist agricultural production system that operates like an industry.

The demand presented by Honecker at the Ninth Session of the Central Committee (1978): "What we need is more stable yields, to enable a more effective utilization of our livestock herd without large grain and fodder importations,"³⁴ has not lost any of its actuality. But no decisive change will occur as long as, under the doctrine of the absolute superiority of large enterprises, the agricultural policy of the GDR will consist in dealing with the weaknesses of existing enterprises merely by replacing these enterprises with ever larger and increasingly involved forms of enterprises and organizations.

FOOTNOTES

1. See: Collective authorship: "Die sozialistische Intensivierung und der Uebergang zu industriemaessigen Produktionsmethoden in der Landwirtschaft" [The Socialist Intensification and the Transition to Industry-Like Methods of Production in Agriculture], Berlin (East) 1978, p 87.
2. Hoell, G., "Die Agrarverhaeltnisse im Sozialismus" [Agricultural Conditions in Socialism], Berlin (East) 1980, p 96.
3. Ditto, pp 92-93.
4. Heidrich, L., "Was gibt es Neues auf dem Lande" [What is New in the Country], Berlin (East) 1977, p 20. - See also: Collective authorship, "Die sozialistische Intensivierung...", (Footnote 1), pp 77-94. - "DDR Landwirtschaft kurz beleuchtet" [An Overview of the GDR Agriculture], Berlin (East) 1977, p 10.
5. Ruethnick, R., "Toward the 10th SED Party Congress with Renewed and Increased Initiatives," SOZIALISTISCHE FORSTWIRTSCHAFT, No. 1, 1981, pp 4 and following.
6. "Experienced Collectives," BAUERN-ECHO, No 4, 1981, p 2.
7. "Lessons of the 1977 Harvest," NEUER WEG, No 6, 1978, Supplement, pp 223 and following.
8. Hey, W., "Personal Transportation in Agriculture," KOOPERATION, No 8, 1976, pp 384 and following.
9. Rothnauer, A., "Along the Road to Cooperation, to Improve the Effectiveness of Agricultural Goods Transportations," KOOPERATION, No. 6, 1979, pp 279 and following.

10. See Kunze, A., "The Rational Use of Energy in Soil Cultivation," *FELDWIRTSCHAFT*, No 1, 1981, pp 3-5.
11. Hercher, H., "So No One Can Find Excuses," *NEUE DEUTSCHE BAUERNZEITUNG*, No 11, 1980, p 6.
12. Information on other causes of unsatisfactory soil productivity in the GDR can be found, among others, at different places in the study: Lambrecht, H., and Merkel, K., with the collaboration of Steinbeck, W., "Consumption and Production of Agricultural Products in the GDR - Analyses and Forecasts," *LANDWIRTSCHAFT - ANGEWANDTE WISSENSCHAFT*, No 240, "GDR Agricultural Policy," Muenster-Hiltrup 1980.
13. See also: Krebs, C., "Importance and Extent of Investments in the GDR Agriculture," in *FS-ANALYSEN*, No 8, 1975.
14. See: *GESETZBLATT DER DDR*, Part I, No 37, 1975, and Offprint No 808.
15. See: "Law on the Five-Year Plan for the Development of the National Economy of the GDR, 1976-1980," *GESETZBLATT DER DDR*, Part I, No 47, 1976, p 520.
16. Ditto, p 526.
17. Collective authorship, "Die Landwirtschaft of the GDR" [The Agriculture of the GDR], Berlin (East) 1980, p 143.
18. No figures are given for 1980.
19. Calculated as the number of tractors supplied, minus the total number of imported tractors.
20. Calculated from the data given in the Statistical Yearbook of CEMA Countries, Moscow, 1980, p 247.
21. "10 Theories on Corn Cultivation," *BAUERN-ECHO*, No 33, 1981, p 5.
22. See: Liste, H.J., and Gerdes, K., "Increasing Soil Productivity and Yields Through Stable Crop Successions," *KOOPERATION*, No 12, 1980, pp 539-542.
23. More details can be found in: Hohmann, K., Kurjo, A., Merkel, K., Schmitt, H., and Schneider, H., "GDR: Industry-Like Organization of Animal Production," *LANDWIRTSCHAFT - ANGEWANDT WISSENSCHAFT*, No 241, Muenster-Hiltrup, 1980.
24. See: *NEUES DEUTSCHLAND*, No 296, 1978, p 8.
25. *NEUES DEUTSCHLAND*, No 14, 1981, p 4.
26. Decision Concerning the Evolution of Economic Measures in the Socialist Agriculture and Foodstuffs Industry From 1981 on, *GESETZBLATT DER DDR*, Part I, No 16, 1981 [sic - No 16, 1980].

27. "Toward the 30th Anniversary of the GDR," NEUES DEUTSCHLAND, No 100, 1979, p 3.
28. "Looking Forward With Optimism to a Year of New Struggles and Victories," NEUES DEUTSCHLAND, No 296, 1978, pp 3-4.
29. "Objective, Direction and Tasks for a Further Intensification of Sugar Beet Production and Processing," KOOOPERATION, No 7, 1980 (Supplement), pp 309-314.
30. Stielicke, H., "Vierjaehrige Ergebnisse der Nutzung des 'Datenspeichers Schlagbezogene Kennzahlen - Zuckerrueben' zur Produktionsdurchfuehrung unter Beruecksichtigung der Reproduktion der Bodenfruchtbarkeit sowie Schlussfolgerungen zur Verbesserung der Datenerfassung und Auswertung mit der Normativschlagkartei" [Quadrennial Results of the Utilization of the 'Data Bank Indicators by Species - Sugar Beets' to Carry out Production Under Consideration of the Reproduction of Soil Fertility, and Conclusions Concerning the Improvement of Data Collection and Evaluation Using the Normative Card-Index by Species], Thesis, Academy of Agricultural Sciences, Plant Production Research Branch, Berlin (East) 1979.
31. "The Long-Range Objectives of the Plan are the Yardstick of our Actions," NEUES DEUTSCHLAND, No 294, 1981, p 10.
32. "Objective, Direction and....," (see Footnote 29), p 313.
33. Watzke, G., Schuppenies, R., Bockholdt, K., "The Production of Silo Corn Having a High Dry Matter Content Through the Observation of Optimum Planting Times," FELDWIRTSCHAFT, No 2, 1981, pp 71-74.
34. "Looking Forward With Optimist....," (see Footnote 28), p 4.

Industrialization Continues

Frankfurt/Main FRANKFURTER ALLGEMEINE in German 21 Jul 81 p 9

[Article by Hans Herbert Goetz: "Higher Yields in the Fields and in the Barns--Honecker Spurs Agriculture"]

[Text] Where does the GDR's agriculture stand? This question was raised these weeks, as once again the AGRA, that large and representative agricultural exhibition, is attracting large crowds at Leipzig-Markkleeberg. The 10th Congress of the SED has drawn a balance and defined the tasks of the Five-Year Plan 1981-1985. Not only the industrial and energy policies of the GDR, but its agricultural policy as well, must face new, hard, economic and political realities. The unrest in Poland has given the GDR leaders a drastic demonstration of the threatening consequences (from a communist point of view) which will ensue when a communist state is no longer able to feed its people.

This is why the requirement to increase production at the lowest possible cost has now been placed in the foreground. Of course, the GDR leaders, who have always pursued their agricultural policy step by step, in a radical and consistent manner, can point out that their alimentation standards are relatively high; if purchasing the modest choice of meat, fruit or vegetables available still requires standing in line for a long time, it has less to do with the agriculture than with the socialist organization of the retail trade. From the point of view of the communists, viewed on a "Polish" background, the decisive factor is that the consumer has enough food.

The party leaders are not quite satisfied. For grains and especially for grass-land and field fodder crops, the situation is not bad, although the grain yield objectives have not yet been fully achieved. When it comes to root crops, the situation is just as bad as before: at Markkleeberg, the words "our desperate situation" in connection with potatoes and sugar beets even came to the lips of a high official. The yields here, compared with those of West European producers, are modest, and Honecker has expressed some blunt criticism at the SED Congress. There are several reasons for this backwardness. From a Western point of view, it has something to do with the size of the enterprises (5000 to 7000 hectares) where the tillage of the soil, especially important for potato and sugar beet crops, is still not satisfactory. In addition, the seeds are often not good and the very heavy machinery "compacts" the soil which, also as a result of specialization, contains much too little humus. No wonder then, that the exhortations to improve tillage and do more to preserve soil fertility are becoming more pressing all the time. The AGRA shows, almost as in "Alice in Wonderland," what the solutions to these "complex problems," what the GDR's agriculture of tomorrow should be like. The agropolitical future is wonderful: wind energy will be exploited and used for irrigation. Industrial robots will be used at central repair stations; microelectronics will become common on the farm; the cooperatives will be equipped with grain loss counters. And the huge pigpens will operate with "pregnancy detectors." Improved plant breeding will bring high yields; more individual houses will be built. And, another most important point, cooperation will function perfectly, the cooperation between radically separated animal and plant production enterprises.

None of Honecker's words have recently been quoted in agropolitical discussions as often as these: "We have not specialized ourselves to become separated, but to achieve higher yields together, at lower cost, both on the field and in the stables." Honecker and the new politburo secretary for agriculture, Werner Felfe, until then SED Chief in the Halle Bezirk (chemical industry) have one of the weak points of the GDR agriculture in mind when they make this and similar remarks. The requirement for cooperation is not new; cooperation instruments are now at work everywhere to overcome the consequences of specialization. The AGRA demonstrates, as perfectly as only an exhibition can, that cooperation between the separate large enterprises can succeed. The members of management organizations and, of course, the party organization must have the right ideological attitude, i.e. they must know exactly what is politically feasible right now.

They should be technically competent and able to motivate the cooperative members. They should keep alive the feeling that it is for "their" field, for "their" stable that they are responsible, often enough working in shifts. But as Helmut

Hercher, director of a cattle breeding enterprise in Koenigsee (Thuringia) asked: "Now that plant production has been strictly organized by product and by technology, I often wonder who then is responsible for the soil."

Of course, the dialectically trained comrades do not admit in conversation that the lack of a feeling of responsibility might somehow be due to the socialist agricultural policy, not even to the rigorous separation of plant and animal production, which is said to have brought to the enterprises artificial new "conflicts of interest," conflicts until then unheard of between fodder producers and manure users. The questioner is politely and amiably told that he cannot understand this evolution; according to Doctor Richter, one of the new deputy ministers of agriculture, specialization reveals an almost classical case of dialectical contradiction which, within cooperation as a specific productive force, resolves itself at a higher level. It's as simple as that.

The SED demands higher performances not only from the industry, but also from the agriculture. In the GDR, agriculture is now included in the overall economic task. In actual fact this means, among other things, that agriculture no longer receives as many new machines as it would like: the slogan "We must export more" is true for agriculture too. In addition, it must save energy in numerous ways. Formerly, it was said that agriculture was a transportation trade against its will: In socialism, it has become a large enterprise for the transportation of men and materials. The production of straw pellets, these little balls of straw enriched with nutrients at the cost of a high energy consumption, must be drastically cut back: the necessary heating fuel is no longer available, the burners must be converted to raw brown coal. But the GDR will pursue undisturbed its agricultural policy, though at a slower pace.

At the AGRA, in addition to the old fighters, one meets an increasing number of young directors of enterprises, all of them competent agriculturists. From their own experience, they know only the communist agricultural policy, nothing else anymore. Compared to the "brother countries," even to the Soviet Union, they are doing well, they are excelling, and they are proud of it. They hardly know of any modern medium-size farms producing a lot more with less labor, or they have a distorted image of them.

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CSO:2300/4

EXPANSION OF EXPORTS TO LIBYA DESCRIBED

Budapest FIGYELO in Hungarian No 37, 16 Sep 81 p 7

[Article by correspondent I. G.: "Our Expanding Export Market—Libya"]

[Text] Libya today is one of Hungary's important economic partners and markets. This relationship is the result of several decades of development. Barter relations between our two countries began to develop already in the 1960's--mainly as a result of Hungarian exports--, and since 1967 we have also had a foreign trade mission in Libya. However, it was only with the establishment of contractual inter-state relations, that those ties have really began to develop dynamically. In 1974, during an official visit by Libya's prime minister, several agreements were signed, including a long-term trade and economic agreement. (Later on, other inter-state, veterinary, aeronautical and cultural agreements were also added to these.)

During the past 5 years, Hungary's Libyan exports have increased almost fivefold, growing from \$11.9 million in 1976 to \$54.2 million in 1980. The dynamic pace at which exports developed during the past few years, has continued at the same level this year: the value of Hungarian exports during the period between January and July amounted to \$52.1 million, nearly reaching the level of total export revenues received in 1980.

Until now, agricultural products and consumer goods have played a vital role in the expansion of our exports. Last year, for example, 50 percent of those exports consisted of agricultural products and foodstuffs, and industrial consumer goods amounted to about 15 percent. Among our agricultural and foodstuff exports, beef-cattle and calf have been the most valuable items; in 1980, they accounted for about 40 percent of our export revenues. In addition to slaughter animals, we have been continually exporting baby poultry, eggs for breeding, cheese and confectionery goods. Our exports of consumer goods are characterized by a large proportion of textiles and clothing. A relatively small share of our exports--fluctuating between 5 to 10 percent--is comprised of materials and semifinished products. In this group of products, cables--including steel-aluminum aerial lines--are our most steady export items.

Using its export revenues, Libya has been promoting vigorous developments, which encompass every branch of its economy. In spite of this, the share of machines and investment goods in general among our total exports has failed to stabilize, and has been fluctuating every year. (Last year, it amounted to about 16 percent.) So far, we have sold various port-facilities, containers, and during the past few years a

steady number of kilowatt-hour meters and portal cranes to Libya. The number of recently struck business deals and the various Hungarian offers which are presently under negotiation are indications that the diversification of our export structure is just around the corner.

Under a more than \$10 million contract, Hungarian construction enterprises have undertaken the building of 1000 new residential units. BUDAVOX [BUDAVOX Telecommunications Foreign Trade Co.] received a contract for \$10 million worth of work to build up the telephone cable network of a Libyan city. Under a Hungarian-Soviet third-market cooperation agreement, Videoton is shipping computers and software to Libya to be used in one of that country's most significant industrial investment projects. Also under a third-market cooperation agreement--between an FRG firm and the Chemical Combine of Borsod--, Hungarian experts are involved in helping to install the facilities of a PVC-complex and in directing the production of the already completed factory units. By the way, there are also some Hungarian water-researchers and well-drillers working in Libya.

The base for diversifying our export structure with the addition of more investment goods have been more or less laid down already, as a result of technical-intellectual services which various Hungarian enterprises have provided with the help of TESCO [Office of Technical-Scientific Cooperation]. Libya today still does not have a single railroad line. Its first railroad line which will extend to the Tunisian border, was designed in the 1970's by UVATERV [Road and Railroad Planning Enterprise]. Construction soon began, and under a recently drawn up contract, UVATERV was commissioned for \$10.4 million to perform the technical supervision of the project, and under a different contract, to draw up technical plans for the construction of secondary lines. If we consider, furthermore, that under the existing technical-scientific cooperation several (Libyan) railroad technicians are being trained in Hungary, we can also expect this branch of their transportation development to soon be expressing interest in our export products.

In order to diversify their export structure and increase their sales of machines, complete installations and production systems to Libya, Hungarian enterprises have, in addition to intensifying their bidding activities, also expanded and strengthened their market organizations. Earlier only HUNGAROTEX [HUNGAROTEX Foreign Trade Enterprise for Textile Goods] and TANNIMPEX [TANNIMPEX Foreign Trade Enterprise for Leather and Fur] had enterprises in Libya. (TANNIMPEX, in the meantime, has withdrawn its agency.) Today, TERIMPEX [TERIMPEX Foreign Trade Enterprise for Livestock and Crops] and EMEXPORT also have enterprise offices in Tripoli; these, together with the subsidiary enterprises of NIKEX-OVIBER [NIKEX Foreign Trade Enterprise for Heavy Industrial Products-OVIBER National Electric Power Investments] and TESCO-UVATERV, plus a purchasing service make up our permanent marketing organization.

Since the mid-1970's, technical-scientific cooperation has been an integral part of the economic relations between Hungary and Libya. Under this cooperation, Hungary has been training (Libyan) experts--presently 120 railroad technicians--and has been sending its own experts to Libya. Presently, more than 300 Hungarians are working in Libya, and there is a hospital and a clinic, both of which are run by Hungarian medical personnel.

The turnover of goods between Hungary and Libya consists mainly of Hungarian exports, which gives those economic relations a special character. Within this context some practical significance should also be given to the fact, that since the middle of the last decade the volume of Hungarian exports has multiplied, and that the partner country's economic-financial potentials and development programs have generated enough highly valuable import demands to ensure the continued dynamic development of our exports. This is what we should adjust our industrial structure to, including within it a broader spectrum of investment goods and technical and intellectual services.

9379

CSO: 2500/4

COUNTRY'S INDUSTRIAL BASE TO BE ANALYZED, STRENGTHENED

Budapest MAGYAR NEMZET in Hungarian 18 Sep 81 p 5

[Article by Andras Faludi: "On the Agenda of the Economic Committee—the Background Industry"]

[Text] One of the most important conditions for the realization of our economic goals is that we develop an industrial infrastructure that will serve production well. To put it more exactly: let us make up for what we have left undone.

Commissioned by the government, the Ministry of Industry prepared a comprehensive concept and proposal to this end. Bela Pozsonyi, a department head of the ministry, informed one of our colleagues of the details.

Entrepreneurs Sought!

The natural support of the machine industry is metallurgy, and of metallurgy it is mining which in turn needs machinery to carry out and develop its work. In the last analysis, every manufacturing process, in this sense, is the precondition of another process, or of its support.

In the strict sense of the word, what should we regard as a supporting industry? One approach has it that all producer activities belong here which are outside of the production of raw and basic materials, and do not produce final products. According to another definition, we are speaking of items which do not serve final consumption and which, generally speaking, are necessary for the production of other products or product groups, and must be produced in large quantity.

The essence of both definitions is that the support industry is the prerequisite for a smooth pace in large industrial production—for the plants to regularly receive the necessary elements, components, parts, all those "minutiae" down to the last screw without which the work of the great assembly hall would come to a halt. (One of the reasons for the relatively low productivity level of our industry is that sometimes this part or that component is missing from the continuous work.

The expression "support industry" is a bit misleading. We are not speaking here of one industrial branch, like for example with machine tool manufacture or the textile industry, but of industrial activity within a branch and often among branches; and of the amalgamation of many elements which in other respects also play a role in

economic political ideas. For example, it is closely linked with the expansion of cooperation projects, both in domestic and international relations. A similar task is to be found in developing the proper ratio of small, medium and large plants because in general the first two supply the components to the third. But neither is this entirely clear. Because of the uncertainty of supply, many large plants in recent years have organized as a full vertical, and thus manufacture all their own parts and elements for the final product. In such cases, we must make decisions suitable to the given case. It may be that the "purifying" of the full vertical is advisable, or the passing of certain plant of such an enterprise will supply other enterprises as well with its products.

And finally this is what we literally meant by the "development of the support industry": we must find those enterprisers—the branches of large agricultural farms, associations, small enterprises, and even small industrialists—which or who will guarantee the economic manufacture and delivery of one or several products.

The Concern of Various Branches

In general, it may be stated that there are unused producer capacities and production possibilities while at the same time certain products are lacking. The situation would be simple if they dovetailed one another exactly. Unfortunately, this is not the case. Most frequently, we must try to bridge the two kinds of demands with small supplementary investments and organizational measures. The missing support industry may find a place where the production of the plants is not complete; or in agricultural areas where there is manpower and perhaps even a convertible building, but a lack of machinery and production experience. With training and the help of industrial plants, it is possible to develop support bases in such places. Among many other things, the Sixth Five-Year Plan's credit policy prefers such goals, and grants more favorable loan repayment time and interest rates. (It is possible to request loans for such goals from the State Development Bank; OKISZ [National Federation of Artisan Cooperatives] and SZOVOSZ [National Federation of Cooperatives] also help in the development of support plants.)

It is obvious that the clarification of the details of the tasks is an inter-enterprise task: a question of orders and contracts. The various organs of the upper management can help the process with appropriate information, they can discover the areas of shortages, and direct the attention of those with enterprising intent to these places. That an information center can collect all the demands and communicate these to the enterprises. The process affecting the entire economy and the various organs and the organization of the appropriate parts supply is much more complex and manifold than that. The national controller of the area, the Ministry of Industry, supports, for example, the organization of new subsidiary plant branches, the outlays for machinery, and the establishment of new shops. In the National Material and Price Office a special program is being prepared to substitute imported spare parts so that industry and manufacturer can determine what products it might undertake to produce that have been imported up to now.

Concept Under Study

The establishment of a support industry, therefore, is not the task of an industrial branch or sub-branch. It is a matter of such complex activity, series of measures, improvement of cooperation among the plants, and better commercial forms—including

the regulators which promote these--in response to which the parts supply of large industry may be improved.

The tasks are clear, and it is now necessary to find the best methods for implementation. For example, the experts in the Ministry of Industry have determined that--although there are still some reservations about quality--in volume we can supply industry with domestic steel castings, forged and pressed products, and cooper castings. The development plans are ready, the investments have been started as a result of a series of products which will be more plentiful than now.

We must also look into the long range future. A production policy concept is being prepared under the direction of the National Planning Office which is looking ahead to the beginning of the new century: a part of this deals with the future of support industries. In view of the fact that the tasks and conditions in this area change more rapidly than, for example, in energy consumption, this section lays out the tasks not up to the year 2,000 but for the time period 1981-1990.

Since it is not a matter of the problems and possibilities of one ministry, a Support Industry Coordination Committee has been created. This is an inter-ministerial organization that relies most heavily on the Ministry of Industry, which is responsible for this subject, but also represented on it are the ministries of trade, finance and agriculture as well as the Hungarian Chamber of Commerce, the MTESZ [Federation of Technical and Scientific Associations] and other national organs. The goal is to formulate and harmonize tasks. The details and the tasks of a given area are worked out by the basic organs. Such, for example, is the Machine Industry Planning Institute, which deals concretely with those measures which must be taken by the machine industry plants; and the Industrial Economic and Procedural Organization Institute researches the problems of better information acquisition and circulation.

6691

CSO: 2500/10

EXTENT OF PRIVATIZATION IN RETAIL TRADE REVEALED

Budapest FIGYELO in Hungarian 16 Sep 81 p 2

[Article by Dr Erno Herner: "Contractual and Lease Businesses--Private Entrepreneurs in Retail Trade"]

[Text] In the first half year following the introduction of new operational forms for small stores, the enterprises announced 4,000 to 5,000 businesses on a monthly average, and for about a half of these entrepreneurs were found. At the end of the half year more than 900 contractual and 100 lease businesses were operating in the country. This means that about 1 percent of the stores and 4 percent of the restaurants were operated by private entrepreneurs. In the coming months we can count on an increased pace in the changeover.

Results of Negotiations Announced in the First Half Year of 1981
for the Operation of New-Type Small Stores

	Number of Announced Stores	Number of Applications	Number of Businesses Turned Over Under Contract and Lease
Restaurant	258	428	186
Confectionery-expresso	278	573	179
Buffet-bistro	334	399	181
Beverage, and miscellaneous	290	403	160
Total restaurant units	1210	1803	706
Meat store	69	16	7
Vegetable-fruit store	256	123	80
Miscellaneous food store	589	148	83
Clothing store	48	48	24
Miscellaneous industrial items	200	302	112
Total stores	1162	637	306
Total restaurant units and stores	2372	2440	1012

Thus more than one-half of the businesses offered were restaurant units. This is natural since by December 1982 the restaurant industry must terminate the free cashier form, with the exception only of work place buffets and buffets without hot kitchen. Why area distribution is so varied is less understandable and apparently can be ascribed to subjective causes. In the first half of the year, a total of 20 to 40 businesses were announced in some megyes, and 100 to 180 in others.

Eighty percent of the offered businesses belonged to the state, and the afesz [General Consumer and Marketing Cooperatives] started its activity only later. The number of announced and turned-over cooperative businesses in Budapest and several megyes, particularly in recent months, has fortunately begun to increase. However, a number of cooperatives still have not taken the first step. The resolution by the management of a Hajdu megye afesz is indicative of the uncertainty that exists at some places: "The management has decided that the contractual operational form at cooperatives will not be introduced in 1981 and 1982, but in 1983 we shall again have to return to this question and decide once more on contractual operation." This decision is a typical example of the fear of the new, and of excessive caution.

Greater Profits

Anyone can apply for the management of a business who has the prescribed qualifications (professional training and unblemished court record). Among applicants we find former business managers, subordinates, and other business workers. But it is not unusual to find also industrial workers with previous commercial experience, and persons with other backgrounds.

At more than one-third of the businesses that were turned over there was competition for the management of the store. On the average, 5.1 persons applied for these units. In the case of various applicants the business was given to the one who from the point of view of society could operate it the most effectively, or the one who offered the highest lease or lump sum payment from the business revenues attainable during his operation. As a result of the biddings, the starting lump sum figures rose by 150 million forints. This represents by business and by year a profit of 144,000 forints for the enterprises, and thereby for the national economy.

A relatively short time has passed since the first contractual and lease businesses were established, but we can already arrive at certain conclusions--above all, that the system is operable.

The goal of the new-type operational forms was primarily that the population's supply should be improved. Trade of businesses operating under the new forms rose generally by 30 to 40 percent, but a doubling of receipts was not unusual. Consumers, therefore, are glad to seek out these places where they find the goods they need. In wake of the business managers' efforts and with careful work and the solution of purchasing problems, despite the frequent unreadiness of the suppliers, selection improved and adjusted better than heretofore to the demands of the purchases. A better supply promotes more rapid and attentive service, and also a modification of the business hours. Certain businesses have also introduced new services.

A solid price policy is characteristic of these businesses. Many entrepreneurs abide by the principle: heavy trade, small profit. According to the studies of one restaurant enterprise, meal prices in contractual businesses vary between 20 to 40 forints, but between 30 to 60 percent in tight accounting businesses in a similar category.

A basic requirement was the intensification of efficiency. Its realization is attested to by the profits paid in by managers. The businesses turned over during the half-year period operate with twice as much profit in lease and in lump sum as in the previous comparable period. Many units operated at a loss before the turnover, or gained only minimal profits, but now they increase state revenues by a profit of 20,000 to 24,000 forints.

Business is accompanied by risks. Apparently every year there will be some who are not capable of meeting their payment obligations. In the few months that have passed thus far, there have already been some businesses where the calculations of the entrepreneur proved incorrect and the contract had to be dissolved. In such cases, the business manager is liable with his other full property in addition to the security money.

What is the secret of efficiency improvement? Above all, greater trade with the same or less manpower. Business managers with a maximum interest in results have come up with many ideas and initiatives for the better use of capacities, for increased trade and for the reduction of costs. These are, for example, the setting of lower prices in dry periods, the introduction of supplementary items, expansion of the sales area, conversion to less expensive energy, and so forth.

Another goal was the participation of private money means. A given lessee would invest 200,000 to 300,000 forints in the purchase of working capital. In the case of contractual businesses, working capital or the purchase of a part thereof is only a possibility to which saving of the utilization fee gives incentive. It is a fact that working capital financed by the enterprises has declined by 10 to 20 percent.

Reduction of Administration

An important goal was the simplification of management work and the reduction of administration. The administrative duties of the business managers are minimal, and instead of keeping records and preparing reports, they can now devote more time to purchasing goods and giving more attention to the buyers.

Following the turnovers, management and control work in the enterprises has substantially declined. It is now unnecessary to deal with the commodity purchases of these businesses, the material and means supply, repair and maintenance tasks, and management control. The periodical inventories and accountings have been eliminated, and numerous records are now superfluous. Still, there are frequent complaints that the administrative work of the enterprises has not declined. In addition to the unavoidable new records, the explanation for this is the newness of the tasks, the lack of experience, and the relatively small number of businesses that have been turned over thus far. At the Hajdu-Bihar Megye Restaurant Enterprise, where 80 businesses are operating under contractual form, administrative personnel has already declined by 6 persons. It is a justified complaint of retail enterprises that certain wholesale and technical suppliers are not prepared to give direct service to business managers, and they collect their bills through the operating enterprise.

Experiences in the first half year bear witness that the decisions to carry out the conversion gradually was a correct one. The enterprises are able to turn over their businesses only by steps, and a longer period of time is also needed to arouse the entrepreneur spirit.

Obstacles Remain

In the past period a total of 2,300 businesses have been advertised, and of these more than a thousand have been turned over. Among the advertised food businesses, entrepreneurs came forward only in case of one-fifth, and there were no applicants for 30 to 40 percent of the restaurants, expressos, and dry goods stores belonging to the most sought after category.

Conversion to the new form will not proceed by itself. It is basic to set realistically the lump sum or lease payment, and to weigh reliably the possibilities of increasing profits. Particularly in the case of food businesses, the announced fees were unrealistically high on the assumption of large profit development. The working capital needs of contractual businesses must be correctly determined, as well as the extent of the property security, and other conditions of the turnover.

It happened at times that the invitation for applications was not given adequate publicity and thus did not come to the attention of interested people. There was an enterprise which "modestly" ran a small classified ad and was surprised that no applicants answered.

For effective operation of the system, it is necessary to have as many applicants as possible and to have competition among those applying. This would also be in the interest of the enterprises by reason of a large lump-sum fee. And still it happened at some enterprises that instead of dispelling misunderstandings among the retail trade workers, they sought to frighten away the business managers and sales people who wanted to try.

The retail trade enterprises should again advertise retraining courses for their own workers as well as outside personnel. Such training would be an important forum not only for educational purposes but also for persuasion and for arousing the entrepreneur spirit. We must overcome the natural conservatism which is supported by the comfort of the business operator form and its freedom from risk.

An important condition for successful operation of the businesses is an improvement in purchasing conditions. It is important that the industrial and wholesale suppliers should always serve the contractual business managers and lessees without delay, solve the problem of fast accounting and direct receipt of the payment of the purchased goods. The goods deliveries of businesses operating under the new form should be built into systematic supply routes. It is advisable--primarily in the case of foods and other daily items--to develop self-service store rooms, where in addition to the business managers and the lessees the private dealers and managers of all other businesses may purchase in a supplementary way. Until these conditions obtain everywhere, enterprises turning over a business should cooperate in goods purchases.

6691

CSO: 2500/7

PARTY MEMBERS ACTIVE IN UNIONS, SUPPORT EXPANSION OF SMALL BUSINESS

Budapest NEPSZABADSAG in Hungarian 25 Sep 81 p 5

[Article: "On the Agenda of Party Forums—Mass Political Work, Services, Agitation"]

[Text] On this occasion we were gleaning among the points of the agenda at district sessions in Budapest of the party executive committees. At the Sixth District they conferred on the work performed in the trade union by the communists of the MAV [Hungarian State Railways] managing directorate; in the Eleventh District on the activity by private small industry (artisans) and retail trade serving population supply; and in the Thirteenth District on the agitation activity of two AFIT [Industrial Trust for Auto Maintenance] enterprise party organizations.

Communists in the Trade Union

Recently the party executive committee in the Sixth District discussed those experiences which the party committee of the MAV managing directorate gained in helping trade union work.

It is an important ideological basis of trade union activity to recognize and take into account that the trade union is an independent organization in which the party's policy is implemented by the communists who work there. In addition to the personal conditions, one successful method of this has been regularly to invite the secretary of the trade union committee to party committee sessions where trade union subjects are discussed, and to party secretary conferences.

At special branch conferences of the basic organizations, they extend—with the participation of trade union officials—fundamental information on the events, situation and tasks of trade union life. This is also true at higher degrees of relations because at the sessions of the railroader unions' central leadership and presidium, the secretary of the managing directorate party committee is also regularly present.

All this and several other such methods are in themselves actually only forms, but not formality. This is what gives, to be sure, the framework for those substantive works of which perhaps the most basic condition is the mutual giving of information, and of orientation. The party's ideological-political work is not some kind of abstract activity but a power present in daily practice and in happenings which sometimes appear small.

For the measuring and the increase of this strength, a great opportunity was presented in the series of events which recently took place in trade union elections. By virtue of the increased legal sphere and influence of the trade unions, it was necessary to raise great requirements on the new stewards, and in fact on newly elected chief stewards. During the election it was necessary to struggle with two kinds of mistakes and views. One of these would have demanded the help of the party organization in details, and the other would have gone the opposite way: it found excessive, for example, even the debate of a list of standard candidates at party membership meetings. In this situation it was necessary to have real, patient and convincing political work, and open and frank positions by the communists.

All this bore fruit, for example, in that the stewards now include more workers who are in the vanguard of work and are respected by their colleagues. Today everyone acknowledges that the communists working in the trade unions have a great part in the development of the trade union committee work of the railroad department. They present themselves successfully in interest protection questions and in the harmonization of social, group and individual interests. They support the economic leadership unanimously, for example, in the realization of the principle of distribution according to work, but when necessary they can also say no.

The party's executive committee can establish that the communists of the MAV managing directorate working in the trade union can realize the dual function of the trade union: interest representation and mobilization. A constant condition of its further development, and the raising of trade union work to a still higher level is that communists should realize their responsible assignments in this direction with appropriate understanding, courage and political preparedness.

Private Small Industry and Retail for the Population

The party executive committee in the Eleventh District discussed at its 16 September meeting the private small industry and private retail trade situation on the basis of a report by the economic-political work committee and the district council. The report states that in the Fifth Five-Year Plan period the small industry and retail trade developed, in wake of increased material incentive, a rapid growth in the demands of the population and a more favorable social judgment. Quite a few took out an industrial permit, and few returned them. The number of small industrialists rose in the last 7 years from 832 to 1,040, and the number of small retailers from 144 to 182. This contributed to a better supply for the population. But we need additional efforts for small industry and retail trade to adjust better to the supply needs of a huge district with a population of 200,000 persons. The debate that followed the report outlined the possibilities of further development and the obstacles to taking advantage of them.

They emphasized that in the future it will be necessary, above all, to grant industrial permits where supply is inadequate. There is a particularly great shortage in some districts in shoemakers, tailors, glaziers and carpenters. In these trades, replacements are also lagging behind. They proposed to the district councils that with the help of the party organizations and the council members they should make a survey as to where a particular shortage of small industrialists and retailers exists. They should above all give permits, low rent shops, tax rebates, materials and credit to those trades and businesses for which there is the greatest need in a given area. It is principally for this goal that they exploit the possibilities in the lease and contractual system and the small cooperatives, trade groups and work teams which are being formed following the new orders. The general introduction of the five-day work week will certainly help in their establishment.

Development is also hindered by the fact that most of the small industrialists work in poor shops and on obsolete machines. Private trade complains of a similar matter. They need to be helped in order that they may work under better conditions. That small industrialist, for example, is worthy of recognition and help who creates a new value and with the increases the commodity base, as well as the private trader who speeds up the movement of goods from the producer to the consumer, and increases the range of selection. We must oppose the mistaken notion that all of them can become rich in a short period of time. But we must also make impossible the illegal taking of property which still occurs. It is also a matter of concern that the small industrialists and the associations now being formed will perhaps lure away the best skilled workers of state industry with disproportionally high wages. State industry has already reckoned with this competition; in the future greater care will have to be taken to see that it keeps senior workers. The controlling organs should exercise closer watch over private undertakings also in order to hinder possibly unfair profits, concealment of the tax base, and corruption. This also serves the interests of the honest small industry and retail trade.

Finally, the resolution of the party executive committee emphasizes that the residential area party, people's front and council organs should draw the workers in the private sector into social life.

Resolute Engagement in Politics

Recently, the party executive committee in the Thirteenth District passed a resolution on timely tasks of propaganda and agitation. The placing of the subject on the agenda was justified by the fact that the 12th Party Congress set important tasks in this area of political work.

In analyzing the execution of the resolution, they recently made a reckoning of the agitation work by the party leadership of the two AFIT enterprises working in the district. They evaluated highly the activity of the No II enterprise leadership for seeking to use every forum of plant life for this work. Here belong the meetings of the various political bodies like, for example, the party days, the activists' conference, or the informal conversations about everyday politics that take place by the service pit. All this is done in harmony with economic goals, a result of which is, for example, that the work team--three-fourths of which consists of skilled workers--regularly participates in various courses on political or trade continuation training. They successfully worked out the resolution of the party congress, and achieved thereby a significant attitudinal outlook. As a result, most of the workers do not expect solutions to the management problems from the outside, but put it this way: "These are our tasks, which above all we ourselves must solve."

The party leadership of the No IV AFIT enterprise expects the membership in everyday political work to espouse a resolute stance, the grounds of which are improved, for example, by explanations in the interpretation of the resolution, by frequent information, and by urging the study of the party press. Special attention is also devoted to the improvement of personal conditions. Among other things, at all four basic organizations they strengthened the information committees with well-informed comrades, and they also established a responsible post for agitation and information. The various areas of the work are reviewed from time to time as was done, for example, by discussing the agitation situation in September of last year at the work place, and this year in March among the youth.

The party executive committee in the district passed a resolution that for the edification of other party organizations they will make it possible for the two AFIT party leaderships to report on their experiences at district forums of party life.

ECONOMIC RELATIONS WITH KUWAIT DESCRIBED

Budapest FIGYELO in Hungarian No 36, 9 Sep 81 p 11

[Text] Hungarian foreign trade discovered Kuwait as an export market and economic partner before this country on the Persian Gulf with a small area and population and before this area and its six oil-producing and exporting countries—Saudi Arabia, Kuwait, Qatar, the United Arab Emirates, Bahrein and Oman—with its 200 billion dollars' worth of national products and its per capita income of 15,000 to 20,000 dollars a year became an important factor in international trade. The Hungarian traders in consumer goods, primarily textiles, appeared in the modest market of Kuwait in the beginning of the 1960's when the small country became an independent state.

Liberalized Trade

The value of Hungarian sales between 1960 and 1966 increased more than ten times; the volume and even more the continuous increase in the market's purchasing capability justified the establishment of a foreign trade mission. Following this, not only did the market work of an increasing number of foreign trade enterprises participating in the marketing become more brisk but from 1966 on there was also a gradual buildup of the international [bilateral] relations; exchange visits were held between economic ministers and various international agreements were signed—commercial, health, highway transport, and air transport. The results attained in the development of bilateral relations were reflected in the official visit to Kuwait in 1979 by Prime Minister Gyorgy Lazar.

Today Kuwait is commonly regarded as a country rich in oil, foreign exchange revenues, and currency reserves. The economic cooperation of the two countries, and moreover from the viewpoint of Hungarian export the economic structure of the partner country and its fully liberalized commerce also play an important role. More than 90 percent of Kuwait's social products consist of oil production and refining, and therefore the requirements of its personal and public consumption as well as the consumption of the production sphere are basically met from imports. Nowadays, not only are Kuwait's import capacity and needs considerable, but its commodity structure is also extremely broad and includes producer means, parts and components, various kinds of investment goods, consumer industrial items, and food products. Kuwaiti partners are able to market all these products in Kuwait without discrimination. But this market has another essential feature—its competitive nature. The products of the most developed industrial countries are competitive on

Kuwait's nondiscriminatory market. It is also worthy of note that in its international trade Kuwait does not ascribe importance to bilateralism, and in relation with many of its partners it is primarily or exclusively an importing country. Hungary also belongs among these partners, and the special importance of the trade between Hungary and Kuwait derives from this.

Hungarian Exports Equal 55 Million Dollars

With the exception of 1968, 1969 and most recently 1980, Hungary's exports to Kuwait have grown continuously and—the term is appropriate—dynamically. Between 1970 and 1980, Hungarian exports rose from about 4 million dollars to more than 55 million dollars. Last year, Kuwait's share in total Hungarian exports came to 0.5 percent, and to about 1 percent in Hungary's nonruble exports.

Two trends characterize the development in the value and volume of the exports. In the past decade, commodity stocks have been altered, and the commodity structure has become diversified. To the end of the 1960's about one-half of Hungarian exports consisted of consumer industrial items—textiles for the greater part—and in 1970 the share of machine industry deliveries was relatively important, for example, 32 percent in 1970 and consisting of buses, transformer sub-stations, floating cranes, and motor tugs. In the past 10 years the export of foods has increased most vigorously—dressed poultry, cheese, canned vegetables, and so forth—and by 1980 their share rose to 45 percent, while the share of the former main commodity group of consumer industrial items declined to 28 percent. The share of machinery was the highest in the middle of the 1970's, that is, about 40 percent, while last year it came to only 18 percent. Diversification is basically the result of the increase in the export of foods and the expanding supply of consumer industrial items. The commodity structure of materials and semi-finished products has not changed significantly, and the composition of machine industry exports also took on "traditional" patterns. In this commodity category, strong-current equipment and transformer sub-stations provided the greatest business success, and up to 1980 we exported about 70 million dollars' worth of these products.

Economic cooperation between Hungary and Kuwait has not been limited to the sphere of commerce and commodity export. As a consequence of its special endowments, the partner country acquired an important role in the 1970's also on international money markets. On a number of occasions in the recent past, Kuwaiti money institutions—most recently, this year—cooperated with the Hungarian National Bank in its bond issues and its loan operations.

Expansion of Supply Timely

Up to now Hungarian exports to Kuwait were at the highest in 1979; last year they declined but in the first half of 1981 they rose again. (The decline was caused basically by a lapse in two export products, transformer sub-stations and dressed poultry.) To increase exports still further and to reduce or eliminate the temporary decline, it is timely to expand the export supply in the broad sense—on one hand, with investment goods linked to the industrial and infrastructural development of the partner country, and on the other hand with fitting, building, works management, special advisory consultant services, perhaps with the

cooperation of Hungarian Kuwaiti firms on third markets or other countries in the area. The possibilities of such export expansion are indicated by the fact that commissioned by Deutsche Babcock, KIPSZER [Light Industry Assembling and Construction Enterprise] is carrying out local fitting operations in Kuwait. Moreover, we could still considerably expand the export supply in every commodity category with competitive products. Although in recent years there have been many representative exhibits and programs serving to introduce and popularize Hungarian export items, this activity must be continued and strengthened with topical exhibits.

6691

CSO: 2500/5

REALIZATION OF CONSTRUCTION INDUSTRY'S TASKS VIEWED

Budapest PARTELET in Hungarian No 9, Sep 81 pp 22-26

[Article by Dr Kalman Abraham, minister of construction and urban development:
"Implementation of the Construction Industry Resolution"]

[Text] The Central Committee considered the construction industry's situation in 1978. Almost 3 years have passed since this body specified the tasks of the branch and set the directions for the growth of the construction and the construction material industry. However, it also pointed beyond that, since the decision indirectly affected the entire society. This derives from the situation that the branch's activity is in some way present in our economic and political achievements as well as in our problems. That is, the way the quality of housing is improving, what is the efficiency of the construction projects and of the investments, how much effort we expend by our maintenance work to protect the national property, are not simply branch questions but also questions concerning the national economy. And it is one of the significant aspects of the resolution that it called the attention of the profession as well as of the public opinion to this. In essence this can be used to explain why, following the Central Committee's resolution, the construction industry is judged to be in a better situation than before. This is so because the recognition has become clear that what has taken place in our country in recent decades, did in all details interrelate with construction. And broad based political support work has also gotten under way which has resulted in a realistic ideological change in evaluating the construction industry. The emphasis on shortages, slow work and lack of discipline has been replaced by the discovery of reasons and a helpful intention to eliminate them. All this contributed on the one hand to developing a unified attitude to construction matters, and on the other hand a value system of being dependent on each other. This is not unimportant, if for no other reason, than because the construction industry is made up of 5,000 larger and smaller organizations, and employs a total of about 450,000 people, and uses no fewer than 70,000 kinds of products.

Favorable Changes, New Processes

The resolution made it a goal to accelerate the growth processes, expand the quality requirements and increase efficiency. In essence this made it a requirement for those who direct the branch, and for all of its workers, that their activity react more sensitively and on a higher level to the changing social demands.

Over the shorter as well as over the longer range the resolution specified the direction in which the branch is to grow. And from the experience we gathered thus far, we can already draw the conclusion that changes in the right direction, and good initial results were born in the process of implementation.

We can consider it favorable, for example, that work was concentrated mainly on the major investments. The number of structures under construction decreased by 16.5 percent in the last 2 years. At the same time, the implementation value per structure has increased. These results were possible to achieve primarily by starting fewer new jobs. Simultaneously, the construction industry increased the ratio of structures dedicated to ones under construction. Another datum typical for the increase of concentration: in 1976 the value of newly begun investments was 2.5 times that of the ones completed, but last year this decreased to 0.5. Together with this the degree of completion of the investments has also increased.

The resolution specifies it for us that completion of the housing construction program is to rely on the results of mass construction, and at the same time such municipal structures [sic] and residential districts should be developed which are better suited to satisfy the demands made by the living functions connected to the place of residence. In this program, housing construction by private resources must be elevated to the rank of construction by the state. Of course, the technical and organizational conditions must be created for this.

In the last 2 years the construction industry fulfilled its obligations to complete a certain number of housing units—within this, the obligation to complete a number in Budapest. In 1979 they succeeded in finishing 88,196 apartments, and even more than this—89,065—in 1980. The ratio of investments and reconstruction jobs, which improve the payment balance, also rose. An equilibrium has developed in some areas between the local demands and the construction industry's capacities. We can also consider it an achievement that the construction material industry was transformed and modernized. The ratio of systems producing good quality materials has gained ground, and with this they can now satisfy the basic needs at the desired level.

Turnaround in Maintenance Construction

Among the partial concepts which promote implementation, we must especially mention the concepts of maintenance construction, complex construction mechanization, the industrial background of construction, transportation, material handling, sales of production equipment, and growth. The resolution brought about a change in maintenance construction, because the value of this increased by 16 percent since it was passed. In the coming years also we will have to bring great care to bear upon protecting the national wealth. It is worth while reviewing the most important tasks to see how great a task this job means.

The Sixth 5-Year Plan specified 9-11 percent increase in investment construction, 29 percent increase in maintenance construction and housing construction, 45 percent in educational and cultural construction, and a 55 percent increase in the construction of health care facilities. This has not only changed the production structure but by 1979 the center of gravity of the construction demands had also been reorganized. In Budapest, for example, the demands increased significantly

in excess of the nationwide average. The difference in growth rates in housing construction, reconstruction of public institutions, and maintenance construction is particularly conspicuous. In accordance with this, in the last 2 years the reconstruction of four large public institutions (L. Eotvos University of Sciences, Hungarian State Opera House, Carl Marx University of Economic Sciences, and the National Institute of Traumatology) were begun. The value of maintenance construction in the capital city increased by 35 percent.

The change in the production structure, and within this mainly the maintenance construction also required the modernization of skilled worker training. In accordance with the new requirements the basic trade-type training was expanded, and also skilled worker-oriented secondary trade school training was begun. Among foremen the ratio of those with secondary and college education has increased (60 percent).

Upon our initiative, the training of specialized engineers is being built into the system of advanced education for engineers, together with teaching the technical knowledge related to maintenance construction (building diagnostic procedures).

The development of specialized training is necessary also because the task has to be carried out with a decreasing number of people. The increase of maintenance tasks means that the ratio of jobs requiring more manual labor will increase. The contradiction can be resolved only if good planning will prevail in geographic location and professional make-up to the same extent as the number of people employed decreases.

The expansion of paying wages according to performance has been on the agenda more and more compellingly in the time period since the resolution. One of the reasons for the laxities and lack of discipline experienced in the past can be traced back to the absence of performance wages. This year, 60 percent of all the workers affected are working for performance wages. Full expansion of this form of wage paying may liberate a large number of reserve manpower.

Efficient construction activity also cannot exist without improvement in the operating and work organization. We also have achievements in this area which helped improve the internal organization of the enterprises and increase the independence of the production units. As a consequence of this, the entrepreneurial ability and flexibility of some enterprises increased. Thus, for example, the Győr megye AEV [State Construction Enterprise] transports the panels by waterway, and the DELEP [Southern Hungarian State Construction Enterprise] transports them by railroad, and by this they decreased their transportation costs by 30-40 percent. The Alba-Regia AEV makes "albaplast" brand modern windows and doors in its own plant. By this they have taken a big step forward in improving the technology of energy-saving construction.

The initiatives concerning making the prefabricated technology suitable to build single family homes must also be listed here. A model residential settlement of single family homes built of prefabricated panels is being built in Budapest with the cooperation of the DELEP, the Veszprém megye AEV, the Hajdu megye AEV and the Borsod megye AEV. Using the same procedure, the DELEP is building 1,000 single family homes in Új Széged.

The advanced development of technical planning can also be a cost-saving factor, especially if plan variations are prepared and the most suitable one is selected. At such times the extra cost spent on planning returns many times over in the construction, maintenance and operating costs. Examples for this are: the No 3 line of the subway network, construction of the department store in Hodmezovasarhely, and reconstruction of the Debrecen Meat Industry Enterprise. Planning several variations for the Bekescsaba sewer effluent water purification system resulted in savings of 200 million forints. Modification of the plan of the north-south subway's connecting point to the Arpad bridge made 300 million forints of savings possible.

Among the numerous other tasks consideration also had to be given to energy savings. The construction and construction material industries consume about 8 percent of the country's energy consumption. But construction as a whole--directly and indirectly--affects 40 percent of the country's energy consumption. Keeping all this in mind, such new technical specifications have been prepared and made mandatory which promote increased heat conservation in buildings. These specifications affect the practice of technological designing, the manufacture of construction materials (insulating and cover materials, etc) and the energy saving requirements of implementation.

The specifications which provided the large energy consuming enterprises with mandatory energy consumption indices per unit quantity of product, were effective. Their use has been mandatory since 1 January 1980.

Enterprise Cooperation--More Reasonable Work Distribution

The resolution as well as the implementation keep it in mind that the construction industry is composed of larger and smaller organizations. The smaller ones employ 5 to 10 people, the largest ones 7,000 to 8,000. These organizations employing various number of people are supervised by different supervisory organs. So many construction industrial units can be directed only in possession of the appropriate concepts, if operational interference is to be minimized. Conceptional directing must be aimed at increasing the level of organization, but much emphasis must also be placed on improving the technology which covers the advanced development of construction systems, more unified mechanization, modern materials, and on creating the appropriate industrial background for the era's requirements.

The concept of growth--in accordance with the job at hand--covers the entire process of investing in such a way that the jobs of awarding the contract, technological design, implementation and operating must all be done by joint responsibility and with the coordinated cooperation of all participants. All this obligates us to help construction costs rise more modestly by improving technological planning and by using the results of research. We must provide practical solutions which can be implemented inexpensively, taking into consideration our given economic conditions, but which also conform to the requirements of this age. Our goal is that the investing process should take less time than before, and a more reasonable distribution of work be developed between the designing and the implementing enterprises. To achieve this, the construction enterprises will be gradually taking over the preparation of detailed implementation plans from the designing enterprises.

We consider the earlier decentralization of the large enterprise organizations to be significant. As a consequence of this, eight structure building and construction material industrial enterprises became independent. And, so that the earlier restrictions would not hinder the entrepreneurial desire of the enterprises, we have changed the regulations which regulate the right to contract work.

Regional and special purpose associations have been created in order to improve cooperation among the enterprises. During the last 2 years their activities covered the creation of harmony between demands and capacities, the development of specialization and reasonable distribution of work, and the creation of joint supply bases.

Coordinating this multifaceted work, and standardized implementation demand more modern methods for directing the branch, and expansion of the branch's character. In the interest of this the directing activity has been strengthened from the conceptional viewpoint and in developing a broader sphere of cooperation. Relations with the national economy's planning organs, the other top level authorities, the interest representation organs and the regional organs have become closer. The latter one is served by the geographic responsibility system created by the ministry, and aids cooperation with the megyes in comprehensive construction matters. It is also one of the tools of the job of directing the branch. The results of maintaining contact with the functional organs are seen primarily in the planning work. That is, the ministry's concept preparation work relating to national economic planning has become more efficient.

Future Tasks--The Direction of Growth

However, it cannot be denied that in addition to progress, in some areas we did not succeed in reaching the goals we set for ourselves. We do not consider satisfactory the progress seen in plant organization and in organizing the place of work. We also cannot be satisfied with the work discipline, the shortcomings of which show in the lack of coordination of the skilled jobs following one another at the construction sites, and also in the quality complaints. The work must be organized in such a way--and this again indicates the shortcomings of work organization--that there should be no later changes, modifications during construction, and jobs which have to be done over, or at least these should significantly and continuously decrease.

Even though the ratio of maintenance jobs increased, we still see that the mobility and convertability to other work of the enterprises organized earlier to work on new facilities is not satisfactory. This is why they have not yet been able to direct sufficient capacity to the maintenance and renewal construction projects, and to construction projects located far away from the residences of the workers.

Based on all this, it can be judged that the construction and the construction material industries are growing in the direction specified by the Central Committee. Following the resolution, the ministry prepared a detailed plan of implementation, and this was completed by the deadline specified in the operating plan. Our efforts are to continue to maintain this planned way of operating, but to flexibly and independently conform in the tasks and methods to the changes in the economic environment.

We had to recognize that while the earlier tensions were beginning to relax, new tension centers were developing. The shortening of construction time must be mentioned in first place, as well as further improvements in quality and moderation in the growth rate of costs. The construction market's geographic and structural tensions are also awaiting solution.

All tasks come together in developing an enterprising-type construction industry. The party resolution also urges a more flexible entrepreneurial policy. The given characteristics of the system of conditions are fundamentally influencing its becoming a broad-based system. Such are, for example, the decreasing of the investment market's tensions (the demand of major investments made by the state has decreased by 30 billion forints compared to the previous 5-year plan period, to 118 billion Fts), and also the expansion of enterprise independence. Greater independence assumes more modern directing, and also growth in the organizational and interest conditions.

In accordance with our economic opportunities and goals, we will steadily continue the construction industry's technological development, coordinating it with the well-founded goals of environmental protection, land management and energy conservation.

In order to be able to efficiently fulfill the changing construction needs, we will have to continuously improve the construction industry's organizational framework. In addition to this, such a profile distribution is needed which, together with the other aspects will create a competitive situation. New organizational forms relating to the construction industry's services will also have to be created (specialty groups of cooperatives and enterprises, so-called free time construction directorates, and independent economic work associations, etc).

In addition to all of these, we must also promote modernization of the regulatory system because without its price orienting, incentive and balancing functions these ideas cannot become reality.

The Sixth 5-Year Plan specifies that the construction industry's production must increase by 12-14 percent between 1981 and 1985. Within this the investment jobs will grow more moderately, by 9-11 percent, the maintenance jobs more dynamically, by 17 percent. Concentration will vigorously increase in investment construction, and the average value per investment will approximately double. The ratio of investments made by the enterprises will increase. We can spend 64 billion Fts at current prices on maintenance construction of residential buildings. Of this, 35 percent is renewal, 9 percent modernization, and 56 percent maintenance. Between 1981 and 1985, 100,000 to 115,000 apartments will have to be rejuvenated.

The center of gravity of the construction demands will also be shifted geographically. The ratio of projects in Budapest will increase from 27 to 30 percent of the national construction, and in housing construction from 19 percent to 23-24 percent (in comparison to the Fifth 5-Year Plan this means the construction of 4,000 more apartments), in maintenance construction from 28 percent to 32-38 percent. It is an entirely new element of the construction industry's work that its export must be dynamically increased. In comparison with the previous 5-year plan period the increase is 46 percent. The implementation of this task will mean

additional organizational tasks for those who direct this branch. Fulfillment of the program specified by the Central Committee's resolution, and within this fulfillment of the tasks of the construction industry in the Sixth 5-Year Plan cannot be done without the effective help of the enterprise party organizations. In the past also the party organizations helped much in understanding the tasks the same way and in mobilizing for their implementation. Their work can help much in the future also to increase the enterprise's independence, develop the ability to take the initiative, further development of plant democracy, in short to strengthen the unified approach necessary for the successful implementation of the resolution.

It is valid for every single member of the broad spectrum of builders, but also for the leaders of enterprises and cooperatives that we will be able to carry out the tasks--no matter how big and difficult they may seem--by accepting greater responsibility and independence than before.

8584

CSO: 2500/2

COMPETITION IN RETAIL TRADE SLATED TO INCREASE

Budapest FIGYELO in Hungarian 16 Sep 81 p 2

[Article: "Modernization of the Business Operator System—A Temporary Solution]

[Text] In the interest of a flexible adjustment to demand, a recent decree by the Ministry of Interior made it possible for vegetable and fruit stores to decide independently on the reduction of prices set by the enterprise center. As a cover for this, the enterprise grants the stores monthly or quarterly in advance a certain normalized loss and price-change lump sum, the use of which does not need to be accounted for by the business managers. Therefore, they can in practice even keep this sum, although in principle they are obligated to repay the unused portion to the enterprise. However, since the loss caused by unsold products increases the shortfalls, it is likely that they will use at least a part of the sum available to them for price reductions.

In response to the new decrees, trade can become more flexible, and the supply for the population can be improved. And still the question rises why it was necessary to refine the traditional business operator system hardly more than a half year after the introduction of new operational forms which assure full independence to the store managers. What could have justified this decree when the statutory provision makes it possible for more than 90 percent of the vegetable stores to operate under a contractual or lease system?

We have pointed a number of times in our newspaper, in regard to the vegetable-fruit trade, that certain opposition is perceptible regarding the new operational forms. For example, certain enterprises reject a wider introduction of the contractual or lease system by referring to the indifference witnessed toward the announcement of several previously closed or unprofitable businesses. It may be assumed that behind their position is the concern that if these businesses seek more advantageous buying forms from their "mother enterprise," they will reduce enterprise trade and over the long run may put a question mark on the entire organizational structure.

We received two replies to our question whether in the vegetable-fruit trade it would be advisable, as in the state restaurant business, to require the elimination of the business operator system. In agreement, the Ministry of Interior informed us it regards it as necessary "that to a certain period of time it should be required to convert from the free cashier (szabadkasszas) operational form to some other form (contractual, lease or close accounting)" (FIGYELO, No 22, 1981). Asserting on the other hand that the binding prescriptions would damage the independence of enterprises, SZOVOSZ [National Federation of Cooperatives] did not agree with our suggestion (FIGYELO, No 18, 1981). The elimination of the business operator system is not required in the restaurant industry either.

In principle, the ZOLDERT enterprises may be operated in a new way, and of their almost 1,400 stores I would like to declare about one-third as continuous undertakings. Since we are speaking mostly of the smallest businesses, their share in trade is even smaller than this.

These data make it clear why the improvement of incentives for the business operators is on the agenda. The difference between the introduction of the contractual system and the modernization of the business operator system is evident. While the former would force the renovation of the entire vegetable-fruit trade, the latter would result only in partial improvement. In case of the obligatory introduction of the contractual system, the ZOLDERT enterprises would be constrained gradually to select or develop those wholesale trade activities or methods in which or by which they are actually competitive. But if the transformation to the contractual system is not obligatory, the situation is reversed to a certain degree. The enterprises regard the new operational forms as a means of escaping from some unprofitable businesses, and do not regard the modernization as necessary. The refinement of the free cashier system does not in practice affect the relations developed with the producers, or to wholesale trade methods. The ZOLDERT enterprises are still capable of realizing their superiority or compromise based on mutual concessions with producers.

Their economic management assumes enterprise independence, but this cannot hinder the measures that must be taken in the interest of strengthening competition. Applauding the modernization of the business operator system as a temporary solution, I, therefore, believe it would be advisable to prescribe as obligatory the change to this system within several years.

6691

CSO: 2500/6

CURRENT ECONOMIC SITUATION REPORTED

27 Aug 81 Communique

Krakow GAZETA KRAKOWSKA in Polish p. 3

[Text] Industry

--Due to a lack of the imported foil, "makropol" as well as coal powder, the production of telecommunications elements was interrupted in the Association "Unitra Dom."

--The Association "Plastofarb" estimates that losses resulting from the halting of production in subordinate institutions amounted to 20 million zlotys this month.

--In work cooperatives of the leather industry, stoppages occurred as a result of a shortage of "Butaprene" glue and rubber cement, indispensable to the manufacturing of footwear.

Agriculture

--Due to rainfall, work in fields was disrupted in the provinces of: Elblag, Konin, Krosno, Bielsko, Kalisz, Zamosc and Przemysl.

The Market

--The supply situation has not changed. Difficulties in the supply of meat, cold-cuts, cleaning remedies, cigarettes and matches are mounting. In the province of Kalisz, the backlog of cigarette deliveries amounts to 54.8 million units.

31 Aug 81 Communique

Krakow GAZETA KRAKOWSKA in Polish p 5

[Text] Industry

--The industry's supply of engine fuel continues to be inadequate. The ministry of mining and power industries is signalling the necessity for additional tons--15 thousand tons--for the current year and 10 thousand tons of diesel oil.

--The Telecommunications Engineering Industry plants in Radom and Krakow are threatened any day now with the halting of the production of telephone sets because of the lack of deliveries of receiver and transmitter insets from the "TONSIL" works in Wrzesnia.

--In the concrete industry, stoppages in 20 plants were noted (shortage of coal, electrical power, ashes and aluminum powder). In the aggregate industry, stoppages occurred in 41 plants (3 plants shut down completely).

--At the Paint Factory in Wloclawek, the production of finishing enamel for automobiles was stopped.

--Losses in the production of soap caused primarily by a lack of tallow reached a level of 1,030 tons.

Agriculture

--In the northern and foot-hill regions of the country, rainfall is hindering the completion of harvesting. Work on the second grass mowing has also been brought to a stop.

--The sowing of winter rape is going on in the entire country. It is estimated, however, that the sowing has progressed little and its contracting [between farmers and Government for the supply of agricultural products] is proceeding unsatisfactorily as well. Intensive field work is being carried out (fertilizing of soil, plowing, cultivating) to prepare the soil for the sowing of winter grains. In provinces where the soil is lighter, potato harvesting is well under way.

--The procurement of slaughter on 26 August came to 4,670 tons and 63,779 tons from the beginning of the month; i.e., 66.6% of the monthly plan. The procurement of grains until 23 August amounted to 999.1 thousand tons; i.e., 27.6% of the NPSG [national socio-economic plan] for 1981.

--On 25 August, the tobacco industry produced 312 million units of cigarettes, 12.4 million units of low-quality cigarettes and 13.6 tons of cigarette tobacco. In total, cigarette production came to 338 million units and was higher than the average daily production for last year.

1 Sep 81 Communique

Krakow GAZETA KRAKOWSKA in Polish pp 1, 2

[Text] Industry

--Work stoppages in industrial plants are continuing, caused by a shortage of raw and other materials. Interruptions were being noted in shipyards for lack of paints meant for ship painting.

--In the cable industry, production was limited for a lack of electrical-insulation enamel, imported from the West.

--As a result of shortages of appropriate enamel, the Metal Container Factory in Brzesk incurred losses of nearly 2 million zlotys.

--The situation is similar in the chemical and consumer goods industries. This affects important types of production as, synthetic fibers from the Chodak plants, titanium white from the Chemical Plants in Police, soda and salt from the Janikowskie Soda Plants.

--In the "Pollena" Association, the daily production of toilet soap has been reduced by 59 tons, that of special creams by 5 tons and powder laundry detergent by 516 tons in August.

--In "Stomil" of Debica, the decrease in the daily production of tires reaches 2 million zlotys.

--In the paint factories of Wroclaw, the production of primer paint for agricultural machinery and motorization is in jeopardy as is the production of enamel for the shipping industry and emulsion paint.

--Due to a lack of coal, production was shut down in the cement plants, "Saturn" and "Groszowice."

Agriculture

--No great disruptions are to be noted in the work in fields except in the province of Olsztyn and Zielonogora where it was limited due to worsening weather conditions.

--In the province of Krosno, 100 workers on leave from local places of employment are taking part, with the framework of SKR [Agricultural Circles' Cooperatives], in threshing.

The Market

--Meat and cold-cut supplies are getting worse. In Wloclawek, lines for meat start forming 3-4 days in advance. Community queue committees are beginning to form for the maintenance of order.

--In many provinces there are supply shortages of radio-television equipment and mechanized household equipment. Extensive shortages of clothing, footwear, fabrics and other industrial products are noted and caused by, among other things, the excessive buying up of these goods.

8 Sep 81 Communiqué

Krakow GAZETA KRAKOWSKA in Polish p 1

[Text] Transportation

--In the ministry of transportation, there continues to be difficulties caused by a shortage of replacement parts, tires, etc. The state of PKS [State Motor

Transport] is, particularly, poor in the provinces of Krakow, Tarnow, Bielsko-Biala.

--Coal supplies of PKP [Polish State Railroads] have reached a critical stage; there is only a 3 days supply of this fuel while the norm envisages 24 days. Interventions of the ministry at the Coal Sales Center have been to no avail.

--The technical efficiency of MPK's [Municipal Transportation Enterprise] rolling stock is decreasing. This concerns, above all, Warsaw, Lodz, Katowice, Krakow, Bielsko-Biala, Tarnow and Szczecin. In Szczecin, for example, over 40 percent of the cars were inoperative.

Industry

--In industry, there continue to be shortages of raw and other materials, coal; however, the supply of electrical power is less limited with the exception of the building industry.

--The Chemical Fiber manufacturing plants, "Elana," have halted production entirely because of a lack of raw materials. Daily losses amount to 14.5 million zlotys. Other factories of this type--"Wiston," "Wiskor," "Celwiskoza" and "Stilon" have limited their production significantly.

9853

CSO: 2600/2

SPECIAL CURRENCY EXCHANGE RATES PUBLISHED

Warsaw ZYCIE WARSZAWY in Polish 5 Oct 81 p 4

[Text]

Polish National Bank

Warsaw 5 October 1981

Excerpt From Foreign Exchange Rate Table No 19/81

Special Currency Exchange Rates in Zlotys

Country	Foreign Currency	Foreign Exchange and Money		
		Purchase	Sale	Average
Australia	1 Australian Dollar	38.55	40.13	39.34
Austria	100 Schillings	205.74	214.14	209.94
Belgium	100 Francs	88.33	91.93	90.13
Denmark	100 Kroner	459.37	478.13	468.75
Finland	100 Markkas	750.30	780.92	765.51
France	100 Francs	603.59	628.23	615.91
Greece	100 Drachmas*	58.57	60.57	59.77
Spain	100 Pesetas	34.68	36.10	35.39
Holland	100 Florins	1,302.74	1,355.92	1,329.33
Japan	100 Yen	14.54	15.14	14.84
Yugoslavia	100 Dinars*	88.79	92.41	90.60
Canada	1 Dollar	27.93	29.07	28.50
Lebanon	100 Pounds	760.79	791.85	776.32
Luxemburg	100 Francs	88.33	91.93	90.13
Norway	100 Kroner	564.23	587.27	575.75
Portugal	100 Escudos*	51.60	53.78	52.73
Federal Republic of Germany	100 Marks	1,445.01	1,503.99	1,474.50
United States	1 Dollar	33.74	35.12	34.43
Switzerland	100 Francs	1,712.75	1,782.65	1,747.70
Sweden	100 Kroner	600.38	624.88	612.63
Turkey	100 Pounds*	33.59	34.97	34.28
Great Britain	1 Pound	60.03	62.49	61.26
Italy	100 Lira	2.86	2.98	2.92

*In purchase of currency from below listed countries the following exchange rates are used:

Greece	100 Drachmas	53.63
Yugoslavia	100 Dinars	74.85
Portugal	100 Escuso	51.39
Turkey	100 Pounds	30.74
Italy	100 Lira	2.59

Special currency exchange rates are used in settlement of accounts for current transactions

Basic Currency Exchange Rates With a Surcharge in Zlotys

Country	Foreign Currency	Foreign Exchange and Money		
		Purchase	Sale	Average
Albania	100 Leks	181.84	183.66	182.75
Bulgaria	100 Leva	2,618.66	2,644.98	2,631.82
Czechoslovakia	100 Koruny	211.24	213.36	212.30
People's Republic of Korea	100 Won	1,057.19	1,067.81	1,062.50
Cuba	100 Pesos	1,730.05	1,747.43	1,738.74
People's Republic of Mongolia	100 Tugriks	459.41	464.03	461.72
German Democratic Republic	100 Marks	720.13	727.37	723.75
Romania	100 Lei	215.42	217.58	216.50
Hungary	100 Forints	130.20	131.50	130.85
Vietnam	100 Dongs	1,000.28	1,010.34	1,005.31
USSR	100 Rubles	2,304.42	2,327.58	2,316.00

Basic currency exchange rates with a surcharge are used for nontrade payments. For travelers checks purchased in rubles from the Foreign Trade Bank of the USSR, and payable outside the USSR in the currency of the country where used, the exchange rate of 4,828.89 zlotys for 100 rubles will be used. Exchange rate table No 18/81 dated 25 September 1981 is no longer valid.

Exchange rate tables are available for view at all branches of the Polish National Bank.

CSO: 2600/25

DIP REPORT ON STATE OF HEALTH OF POPULATION PUBLISHED

Warsaw ZYCIE WARSZAWY in Polish 2 Apr 81 Suppl No 559 pp I-IV

[Text] Report of Discussion Group "Experience and Future" (DIP)—State of Health and Protection of Health of Poland's Population

* * *

This work resulted from [accumulated] materials and discussions of several months with a group of physicians, a sociologist and a journalist, within the discussion group "Experience and Future," involved in health problems of Poland's population. Taking part in this work were: Magdalena Sokolowska, Henryk Kirschner, Stefan Klonowicz, Jan Kopczynski, Piotr Krasucki, Marian Miskiewicz, Kazimierz Piekacz, Andrzej Piotrowski, Zbigniew Religa, Jerzy Serejski, Mariusz Stopczyk and Jerzy Zielenski.

This group undertook at least a partial evaluation of the health of the population, health protection and the health service in Poland, to relate certain causes with consequences and premises with proposals and thus to provide a first, comprehensible warning signal. It will be followed by a more thorough analysis in the respective fields. For the time being only certain problems have been selected. We were compelled to omit many important problems to which we must return.

Even though our analysis is somewhat superficial, it has certain merits: it lets us know that something is happening in the health structure; it relates and gives meaning to facts and data, seemingly remote from each other. We used extensively data from various papers, materials of the Sejm Commission for Health and Physical Culture, statistical yearbooks, discussions of social organizations (including the section of sociology of medicine of the Polish Society of Sociology), and studies of the NSZZ [expansion] Solidarity Mazowsze Region Center for Social Research. Many of these data were known to selected groups, including various levels of the government, but not to those concerned most--the citizens. The data should be accessible to all, as the health service itself.

The opinion on the state of health protection of the population is universally critical. This is evidenced by various facts and by numerous postulates of the 1980 strikes and in the Gdansk Agreement; dissatisfaction of health workers, expressed in a wide protest action in autumn 1980, when mainly lower level personnel (so-called auxiliary workers) spoke not only for their own wages but

also on behalf of the sick and suffering and demanded improvement of the base, equipment and drug market; rejection--unprecedented in the history of Polish postwar parliamentarism--by the Sejm Commission for Health of a program developed by the ministry; and, finally, numerous critics in the press and at environmental and union meetings. The character of pronouncements concerning the health service changed radically after August 1980. We have departed very far from a recent time when one was not allowed to write on alcohol policy, on polluted rivers, on the situation of the drug market, etc. Statistics on, for example, expenditures for health in the national income, settlements of the National Health Protection Fund (NFOZ), construction costs of a hospital for dignitaries, were taboo. The purpose of this study is not to name even most perturbing single facts, but to present an overall picture.

As mentioned, the picture sketched by us is not complete. In this study we have treated health rather narrowly, limiting it mainly to those phenomena and processes that occur within the pale of the ministry (Ministry of Health and Social Welfare). Certainly we are well aware that the health of the population depends only to a rather small degree on the health service. Of more importance is the influence of nutrition, housing conditions, ecological factors, national sanitary conditions, etc. These questions will be the subjects of subsequent studies. We had to begin somewhere. We would like only to take the first step to make it easier to discuss these matters in the context of fundamental problems understandable to the whole population.

Part One

Why We Are Sick--An Attempt at Diagnosis

Theoretically we should be a healthy society; free health services and universal accessibility of medical treatment and prevention ought to ensure this. For a long time the state of health of the Polish people has not been good, nor is the system of health protection functioning correctly.

Till now this conviction was based on intuition and on random data. Only fragmentary papers, primarily in the rarified language of specialists, contained the truth. More complete studies, and likewise many fundamental figures concerning the actual data, were kept secret, for they contradicted the assertion that all was well. Meanwhile the crisis in the health service was long coming to a head, intensifying from year to year. Its danger was so much the greater because it occurred during a general socioeconomic crisis whose first distinct symptoms appeared in 1975 to 1976. Three elements of strain accumulated in the health service: free service coverage for almost 6 million peasants without a corresponding increase of the health service budget, changes in the administrative divisions of the country that destroyed a number of health care organizational structures, and reorganization of the latter (introduction of the ZOZs [health care teams] with the assumption--perhaps--of some kind of counteraction to the first two).

Serious difficulties exist--not only in our country--with establishing health standards for the population. The paradox is that health is estimated through negation; that is, through the statistics of diseases and ailments. There is no remedy for this, because no adequate, reliable positive indices have been

developed. Social health should be expressed by physical, mental and social well-being. We are, however, still very far from knowing how to measure it on a world scale, not to speak of the domestic one.

If, after all, we accept the "negative" indices, then which ones?

Each of numerous, universally used indices indicates different symptoms; we cannot simply sum them up to obtain a general index of the collective state of health. We may, however, combine several different indices that most characteristically express phenomena and processes of the health sector in a given country, especially compared with other countries.

Not embarking upon a discussion that would weary lay readers, let us only say that we have adopted the following signals as characteristic indices for Poland at the beginning of the 1980's:

- mortality statistics--especially infant mortality, the higher death rate of males compared to females, and death rates in productive groups;
- incidence of viral hepatitis, tuberculosis, and intrahospital infections;
- selected health problems of children and youth;
- some results of appraisals of the health of workers in industrial plants;
- characteristics of handicapped persons and their status in society;
- consumption of alcohol.

These are very different measures. Therefore, the individual parts of our study, corresponding to them, are written in "different languages" and lack cohesion. Individual indices are allotted an uneven amount of space, which does not signify their greater or smaller "significance." Some have been roughly outlined.

It is unfair to judge the state of our society's health on the basis of these indices, observations and general intuition, including our own.

Does Our Life Grow Shorter?

We begin with death rate statistics because for some time these have shown very disturbing signals. While selection and interpretation of the data are not simple, these signals are very persistent.

In the seventies the dire tendencies in the death rates, especially the death rates of males, came to light. Successive tables indicated that average life expectancy in Poland has actually decreased.

The tables of future life expectancy clearly indicate that the thus constant tendency of increasing the average life expectancy of Polish citizens has suffered a distinct setback and continues to regress. This value for newborn males remained at 66.8 years during 1970/1972-1997, whereas that for females has increased by only 0.9 years (in the previous decade the increase was, respectively,

1.8 and 2.6 years). At the same time, the average life expectancy of males aged 15, 30 and 45 has decreased. Especially disturbing are changes of this index in the second half of the 1970's, when the average life expectancy decreased not only for men (newborn, by 0.4; 30 age, by 0.7; 45 age, by 0.6; and 60 age, by 0.3 years), but also—for the first time since such information has been available—for women (by 0.1, 0.4, 0.4 and 0.3 years).

In the evolution of the death rate of men a tendency undisputably points to adverse phenomena. The probability of death for men age 29 and over is greater than 10 years ago, whereas in some age groups it has even increased compared with the 1950's, at the same time the greatest differences occurred in the younger, productive groups. Changes in the mortality rate for rural men appear to be even more pessimistic than for urban men.

The premature mortality of adult males in Poland is very high. Its index rose above the level 15 years ago. Based on this index, 30 developed countries Poland ranks 26th.

Differences in the death rates of men and women determine the phenomenon of the so-called excess death rate of males. In estimating its intensity by the simplest and yet very suggestive measure—that is, a difference between the average lifetime of the newborn female and male—in the period of 1955/56 to 1965/66 this was unchanged, whereas during the decade of 1965/66 to 1975/76 it increased from 6.0 to 7.8 years. On that score Poland assumes a very uncommendable role in the very forefront of the world.

While estimating changes in overall mortality, we should abandon unfounded optimism, until recently expressed by assertions that the increase resulted from progressive demographic aging. This process was not accompanied by mortality in many groups of the young and adult age. Mortality of males in successive productive age groups to date since 1965 increased as follows: in the 25-34 year age group by 15 percent; 35-44 by 35.3 percent; and 45-54 by 34.7 percent; that is, in two age groups it has increased by more than one-third over 15 years. On the other hand the basic factor causing an overall increase in mortality was the increase in the three leading causes of death (diseases of the circulatory system, malignant neoplasms, and accidents, intoxications and injuries, which jointly account for 70 percent of all deaths).

The international position of Poland regarding infant mortality is not good. Admittedly in the postwar period the infant mortality rate decreased more than sixfold; nevertheless it is above the level in most developed countries. Among these countries, Poland still occupies one of the last places (during 1950-1975 Poland moved from 27th to 22nd place among the developed countries and is only ahead of Argentina, Portugal, Yugoslavia, Romania, Hungary, Bulgaria, and probably also Albania and the Soviet Union).

Although in the past decade the ratio of the so-called late mortality of infants (at the age of 1-12 months) has decreased somewhat (from 41.0 percent to 38.2 percent), it still runs at a higher level than in most European countries. Meanwhile, this late mortality, dependent on external factors, determines overall

mortality of infants in Poland. We will not approach the level of the leading rate countries in the prevention of infant mortality as long as we do not reduce late mortality, which shows cultural backwardness and rank shortcomings in infant care.

The recent decrease in the infant mortality rate is also relatively low. In the 1970's Poland yielded in this regard to Portugal, Romania, Yugoslavia, Spain, Italy, Denmark, Austria, Switzerland and Federal Republic of Germany; namely, countries in which this index was higher than in Poland, but also countries whose condition in this regard was considerably better. This contradicts the widespread opinion that the decreased infant death rate is always associated with a slackening of the pace of this process. Moreover, in the foreseeable future this may also effect a deterioration of the international position of Poland and an increasing gap separating it from those ranking first in the world. In the period of 1955 to 1979 the highest rate of the decrease in infant mortality occurred from 1955 to 1960 (7.8 percent annually) and from 1970 to 1974 (7.2 percent). However, each period of such great achievement was followed by "lean" years, when no less strenuous efforts of the health service encountered an invisible barrier. The mean annual rate of decline in infant mortality from 1965 to 1970 decreased to 4.2 percent, whereas from 1974 to 1979, it even dropped to 2.2 percent (it was therefore more than three times lower than at the beginning of the 1950s). Though far-reaching opinions would be perhaps too risky, there is, however, a rather characteristic convergence of dates. Acceleration of this process has coincided in both cases with the beginning of wide-scale social policy programs initiated after October and December, whereas repeated setbacks occurred when these programs were abandoned.

Hepatitis, Tuberculosis, Hospital Infections

Evaluation of the spread of viral liver inflammation (or in common parlance infectious jaundice) in our society and its causes is rather complex because of the different causes of this social disease. The picture is also obscured by unexpected epidemics.

However, the incidence of this disease during the past 20-year period has systematically decreased. In 1960, its index was 257.7 per 100,000 inhabitants. In 1970 it dropped to 215.3, and after another 9 years, to 147.6. In 1979--that is, after 20 years it decreased by almost half. What then is the problem? This incidence is constantly above the level in most European countries; moreover, the rate of decrease of this disease does not exceed the rate noted in Europe in the 1950's and 1960's.

Despite the lack of nationwide data, all available sources confirm a high share (probably about 40 percent) of viral hepatitis type B, or the popularly called infectious jaundice, which we cannot but connect with a lack of disposable needles and syringes and other kinds of disposable medical appliances, even such basic equipment as dry-heat sterilizers or gas sterilizers. Pediatricians ascertained in investigations of school youth an alarming fact: the peak of the incidence of infectious hepatitis of both types is associated with the 9-15 age group. This may point--in view of diversity of sources of this disease--both to the sanitary state of school cafeterias (alimentary source) and to a careless

application of injections (implanted source) to immature, unsuspecting, and therefore most helpless patients.

The overcrowding of hospitals, extended hospitalization (for lack of social assistance units) of elderly patients with chronic diseases, and the low level of hygiene, resulting among other things from the antiquated health base, shortage of personnel, and even ordinary cleaning methods (the condition of facilities is described in more detail elsewhere) cause an increase of the hospital-related infections. They represent a particular danger because these infection strains show a very high resistance to drugs, including antibiotics, and therefore because of their great virulence. It is difficult to give convincing statistics and define the character of intrahospital infections in Poland on account of both the fragmentary state of investigations in this respect and the inadequacy of the equipment in the bacteriological laboratories. These labs, lacking equipment and methods, are unable to determine the etiology of the infection (and therefore cannot help with selecting proper therapy). Anyway, these infections exceed the permissible international level of "the risk included in the reckoning." Practically every patient hospitalized for any length of time is subject to such infection; a very considerable percentage of patients is statistically sure to contract it.

Still more disturbing is the situation with tuberculosis. We achieved real, unqualified successes during the first 30 postwar years, despite difficult conditions. From 1960 to 1979 alone the rate of tuberculosis incidence decreased by more than 80 percent.

Apparently our premature proclamation of victory over this disease brought about demobilization in the form of reduced watchfulness and dismantling of most of our treatment base. Again we are compelled to declare tuberculosis a social problem. We are obligated to do this by the World Health Organization [WHO], which states that tuberculosis ceases to be a social disease when the incidence index is less than 20 percent per 100,000 inhabitants. In Poland it is 77 percent (in the German Democratic Republic, 28 percent, in Denmark, 9.1 percent).

The necessity to undertake anew the fight against tuberculosis pushes us, as it were, backward on the road of civilization. Particularly disturbing is the fact that from the second half of 1970's the incidence in the younger age groups remain unchanged (in the 10-14 and 15-20 age groups they are even tending upward).

Children--Our Future

We could say much concerning this rather significant theme. We limit ourselves, however, to only a few observations.

Certain estimates of the health of the school population lead to disturbing conclusions. The percentage of students requiring wide-scale medical or paramedical care amounts to about 40 percent; together with indications for stomatological treatment at ages 6-18, the percentage reaches 54 to 68 percent.

We do not compare favorably with other developed countries. For example, in Sweden only three negative mass phenomena are recorded for children entering

school: 1. behavioral disturbances, 2. eyesight defects and 3. diseases and defects of masticatory apparatus. Other irregularities are already diminishing in the preschool age thanks to suitably early, general and effective preventive and medical treatment. In Poland, besides the same problems as in Sweden, we have at least three other problems on a mass scale for the entire school-age population. These are disorders of body equilibrium, pathology of the respiratory system, and irregularities in physical development and nutrition. Maturity is reached by more than 50 percent of the 18-year-olds with unsolved school-age health problems (respiratory diseases, allergies, anemia, dental problems, neurotic disorders, menstrual disorders). A worse health condition of our youth is related to insufficient medical care at the preschool age and with poor living conditions and education. A complex of environmental factors in Poland clearly influences (indicated by recent investigations of the Institute of Mother and Child) both the differentiation of the propagation of respiratory diseases and the frequency of the unfavorable physical and psychosocial development of children and youth. The young generation displays a disproportion between physical and mental development. In the second place, no specific acceleration of development is observed, especially in the socioemotional sphere. This leads to well-known consequences in the field of education. Observations also point to a regress in such areas of physical condition of contemporary youth as strength, endurance, nimbleness (L. Denisiuk, R. Trzesniowski et al.). In connection with this a question arises whether the tendencies in youth development observed after the war and considered favorable are really propitious.

Some Observations on Workers' Health

The health of the industrial work force and, in general, of workers of the socialized economy, which employs about two-thirds of persons of the so-called productive age, is undoubtedly a field that may arouse social concern. However, at the same time it is such a vast field that--in accordance with our earlier understanding--it will barely be outlined in this study. To be sure, a separate discussion is needed to expound on the problems broached here. We will point out only some parameters, which may become signals of those wider problems.

The industrial health service extends its care to about 7 million workers. What is the state of affairs of this service?

The increase in the number of regional physicians in this field in the 4-year period (1976-1979) was lower than assumed previously for a period of 1 year. In the industrial health service, and elsewhere, the supervisory staff has increased unduly, whereas physicians were burdened with tasks quite contrary to their basic duties. Everything including their primary duty has suffered from this: investigation of the state of health of the work force and the programming of the prophylactic activity.

Nevertheless comprehensive data exist concerning parts of the workforces, which arouse deep concern. We are quoting them here only as an example. Thus, investigation of the health of the work force of the H. Cegielski Plant in Poznan has shown, in the 35-44 age group, a 10.3 percent incidence of psychoneurosis, 20.4 percent of circulatory affections, 33.6 percent of respiratory diseases, (31.2 percent of the impairment of motor apparatus, and 8 percent of diseases

of the alimentary system. In the over-45 age group these diseases amounted to 9.6 percent, 59.6 percent, 45.5 percent, 54 percent and 12.1 percent. This means that for those above 30 years of age, from one-third to one-half of the H. Cegielski Plant workers are chronically sick. Even more significant are investigations of Filikowski (of the same year), since they concern crews of the Polskie Linje Oceaniczne [Polish Ocean Lines] whose health requirements are especially rigorous. For those investigated, one or more diseases were found in 20 percent of the 29-year and under age group, in almost one-third of those between 30 and 39 and almost one-half of those between 40 and 50. The incidence for those over 50 was 70 percent. In the two last age groups over 40, two or more diseases were found. The poor health of the working population undoubtedly reflects the poor health of the entire Polish population. We are far from asserting that diseases of workers are being caused exclusively by their working environment. Many of them are due to poor housing conditions, malnutrition, difficult commuting conditions, but the plant micro-environment likewise has an unquestionable influence. In the area of work hygiene, the number of physicians declined, and laboratory equipment has not permitted the estimate of occupational hazards by establishing the toxicity of at least 130 substances; some laboratories were able to determine the toxicity of 40 to 70 of them, but the majority have been able to do this in only a dozen or so. The measurements included only 66 percent of iron and steel plants, 49 percent of coal mines, 48 percent of nonferrous metallurgy plants and 42 percent of the electrical machine industry enterprises. The total environmental investigations in 1979 encompassed 12.1 percent of the enterprises. The infringement of hygienic norms was ascertained in 17.7 percent of toxicologic investigations, in 34.4 percent of investigations of the microclimate, in 41 percent of air particles and in 29.8 percent of investigation of mechanical vibrations. In 1979 almost 8,000 cases of occupational diseases were ascertained of which almost one-half were persons 30 to 49 years of age.

These random and incomplete data illustrate a wider problem to which special studies will surely be devoted.

Underprivileged Minority--Handicapped Persons

Another unmistakable index of the health of society is the increase in the number of handicapped persons. This category may be reproached because of its certain vagueness, since one could include here also cripples and invalids, as well as elderly persons, who are often associated with chronic illness and suffering. But this grouping is based on objective reasons, for example, on the undoubted demographic aging of Polish society. It is also difficult to put these persons into statistical categories. Many persons at the same time are old, invalids and chronically ill. Statistical information is available from censuses as to a number of persons who obtained [medical] determination of the three disability groups. According to the 1974 microcensus, the number of such persons was 1,374,300 (including those classified in groups I and II--740,000), whereas in the 1978 general census the corresponding data were 1,928,700 (1,174,000). Therefore the number of legally recognized invalids increased during the 4 years by over half a million persons; of this, more serious disabilities (groups I and II) also increased by almost half a million persons. Some analysts discount comparability of these numbers, ascribing their increase to a great extent to a liberalization

of legal regulations. Perhaps this change is a cause, but most probably it has no relevance to the number of invalids in groups I and II.

According to various findings the total number of persons with limited efficiency for various reasons (including the so-called legal invalids) amounts to about 15 percent of the population, whereas among the beneficiaries of medical and social services it amounts to almost half (40 percent). Thus, these services ought to be reconstructed radically in order to satisfy the requirements of a numerous, constantly growing group of users. Elderly people, the chronically sick, cripples and invalids belong to it. All of them are characterized by the inability--permanent or protracted--to satisfy on their own their indispensable needs; they are more and more often being called "the dependent groups"--dependent on social assistance. Meanwhile, in the prevalent health service model in our country, medical and social care of the chronically ill is being pushed into the background. Their main support base ought to be basic medicosocial care in their homes. As is well known, this is the weakest link in the system. For this reason, together with the simultaneous impossibility of other satisfaction of the needs of the handicapped, elderly chronically sick persons (we should mention among others the chronic lack of accommodations in social care homes), they are uselessly occupying hospital beds, which is a poor solution in every respect, mental, social and economical.

In 1978, the Committee on Human Rehabilitation and Adaptation of the Polish Academy of Sciences prepared a comprehensive report on the situation of invalids and handicapped persons in our society. It included all aspects of the life of these persons, their treatment, rehabilitation, occupational and social adaptation to professional work, economic situation, existing legislation and adaptation of housing environment and municipal facilities to the needs of handicapped persons. Proposals resulting from this report were sent to the interested institutions and persons; in principle they provide a program for action. However, neither this program nor the report itself aroused the interest of the leadership of the Ministry of Health and Social Welfare, the unit that is the chief coordinator of the whole complex of rehabilitation; that is, not only its medical aspects, but also occupational and environmental ones. Nor did they generate any response among other executive units and government groups.

In this field, especially, a countless number of unsatisfied needs. Let us consider medical rehabilitation alone and then only some aspects. According to estimates of the report in question (which concur with the data of the Sejm Committee for Health and Physical Culture) the number of handicapped persons who require various forms of medical rehabilitation annually amounts to about 4 million (this estimate does not include in principle persons in a postproductive age). Approximately one-half of them, about 2 million, require continuous rehabilitation procedures, and the remainder, casual care. Intensive medical rehabilitation should be received by 30 to 70 percent of the patients in various hospital departments and at least 10 to 30 percent of the patients should receive out-patient care. On the other hand, the number of professional rehabilitation personnel in Poland is made up of (approximately) 370 physicians specialized in rehabilitation, 750 physical education graduates specialized in rehabilitation, 6800 physiotherapy technicians, 200 instructors of occupational therapy, 115 psychologists and 230 social workers [sic]. The main centers of rehabilitation in voivodships ought to be voivodship rehabilitation clinics: they exist, however,

only in one-half of the voivodships. Rehabilitation consulting rooms and rehabilitation departments in hospitals are distributed unevenly: they are concentrated chiefly in voivodships. A few central rehabilitation centers have at their disposal about 40 percent of all beds of medical rehabilitation in Poland (about 2,300 beds).

Most persons needing it require early rehabilitation which should be conducted and completed within the pale of general health service in the regional consulting rooms and hospitals. Only a few patients require more comprehensive rehabilitation in special centers. If we assume that the percentage of hospital patients who require rehabilitation within the network of general health service averages 50 percent, then of this not more than about 5 percent require treatment in special centers.

The scope of these special centers is not sufficient to satisfy the needs of the whole country. Even if we assume that they would be used only by 5 percent of patients, who unquestionably should be treated in comprehensive rehabilitation centers (for example, STOCER in Konstancin), the number of beds would have to be increased at least sixfold. However, these centers accept many patients who should not be there and execute many procedures that do not belong there, substituting for other competent regional units, which either do not exist or do not function. This is the characteristic model of our entire health service: a system standing on its head. A bobbing head (large in relation to the rest of the body, although it is still too small) denotes highly specialized units (monumental giants, something like the health service at the Katowice Iron and Steel Works; the skinny very thin, turned upwards, little legs are the regional health service, the basic health service that is a foundation of the whole system.

Alcoholism as a Signal

Dealing with alcoholism last does not mean that we are considering it least important. Alarming this phenomenon is increasing in Poland. This is evidenced by the data in the 1978 report prepared under direction of Prof Ignacy Wald and its later supplements.

In 1978, the average person consumed 7.8 liters of pure (100%) alcoholic beverages; that is, 0.9 liters more than in 1975 and 4.8 liters more than in 1950. In 1977 the average consumption of pure alcoholic beverages reached 8.2 liters per inhabitant, whereas in 1979, it increased to an estimated 8.5 liters.

Especially alarming is the upward trend, which appeared in the 1970's. Even during the first half (including 1976) the average annual increase of alcoholic beverage consumption was as follows:

--alcoholic beverages	5.7 percent
--vodkas, pure and flavored	6.8 "
--wines and mead	6.2 "
--beer	2.0 "

These are very high indices, especially considering two increases in alcoholic beverage prices during this period.

There is every reason to assume that the tendency concerning consumption of alcohol from 1970 to 1976 and in subsequent years has not only not weakened but has rather increased. Poland continues in a group of countries displaying high and increasing indices of consumption. In the consumption of vodka we certainly take first place in the world.

However, there is another alarming fact: stimulation of the increasing consumption by the state itself, which has turned the income from alcohol into a fixed budget item on the profit side: that is, a permanent element of the state's economic policy. This is not the only example where economic policy has been at variance with the principles of the socialist state, but it is a very drastic one. As increased alcoholism is not an isolated phenomenon but a signal of deeper social irregularities, whose sources may vary in different countries. In the Poland of the 1970's there were many reasons for discontent and frustration; these, plus the state supply of alcohol (and lack of other commodities), produced the mentioned results.

Budgetary revenues from the sale of alcohol to the population in 1976 amounted to about 14 percent of the state budgetary income. The leaderships attitude to these problems is well illustrated by the fact that the report on problems is well illustrated by the fact that the report on problems of the policy concerning alcohol prepared by a group of experts and presented to the authorities in 1978, was kept secret; hopefully, is to be made public this year. Only now some steps are being taken to combat this social scourge.

What Ails Health Protection--Attempt at Diagnosis

Outlays and Effects

We can try to measure the outlays for the health protection of the population with four indices: the percentage allotted from the national income for this purpose, expenditures for it from the state budget, the ranking of investments of the health assistance service and social care in the total investments, and import expenditures for the health service.

During the last 5-year period the expenditures in Poland for the health service and social assistance, according to the data of the Sejm Committee, were 3 to 4 percent of the national income and 6-7 percent of the state budget. No one listened to specialists who long asserted that the share of the health service in the national economy of Poland--because of her enormous war losses and neglect in the postwar period--should be at least 7 percent. No advantage was taken from the experience of other CEMA countries that earmarked at least 5 percent of their national income for this purpose.

The overall budgetary expenditures of the Polish state increased in this period by 21 percent and expenditures for health by 5 percent; thus, health protection was far below the mean rate of the increase of expenditures of the state. The share of the investment outlays for health protection likewise decreased from 2 percent of the overall funds earmarked for investment in 1960 to 1.2 percent in 1978.

Also extremely suggestive is the fact that from more than \$20 billion borrowed by Poland in the form of foreign loans for health service needs barely \$154 million (0.7 percent) were made available. In 1978 alone, almost one and a quarter billion zlotys earmarked for construction and assembly work in the health service were lost because it was not carried out. From the National Health Protection Fund, which was donated by social generosity, only about 40 percent was put to good use. The problem of the use of NFOZ requires a special investigation. It is inadmissible to continue the practice of reducing the budget of the Ministry of Health--that is, decreasing the outlays of the state--by the amount contributed to NFOZ.

Many of these data should be considered approximate or estimated, for, in the first place, the reliability of statistical data in Poland is low, and, second, different sources of financing and also phenomena obscure the actual state of things. Thus, for example, according to the analyses of the Sejm Committee for Health, in 1977, the state spent for the purpose of health protection and social assistance 1,573 zlotys per citizen; at the same time there was enormous regional differentiation. The citizen, however, was paying for his own health, including payment for medication, which at 30 percent of reimbursement produces an accumulation of over 100 percent, or 864 zlotys; that is, more than half of what the state budget spent for him.

The health service base is deplorable. While 30,400 hospital beds were added from 1970 to 1979, that can be hardly considered a momentous achievement. In this context, from 1960 to 1970--that is, when the health service was not a favorite of the institutions in charge of the budget and investment policy--the number of beds in general hospitals increased by 33,800. Therefore, the mean annual increase of the number of beds in general hospitals in the 1960's and 1970's was at the same level (3,700-3,800). The number of hospital beds delivered for use from 1975 to 1978 declined by more than half. As initially assumed for the 5-year plan 1976-1980, 47,000 hospital beds shrank to a corrected 27,000, according to plan, and 14,000 real ones. Thus, a regress, compared with the 5-year periods 1956-1960 and 1961-1965, was well evident (in those years 23,000 and 22,000 hospital beds were delivered for use).

Meanwhile the aging and decapitalization of the hospital base progressed. According to the data of the Sejm Committee for Health and Physical Culture, in the "new hospital buildings"--that is, built in the PRL--are located 23 percent of general and clinical beds, 15 percent of psychiatric beds, 21 percent of the accommodations of [social] care homes and 34 percent of homes for pensioners. This means that 60 to 90 percent of the corresponding health institutions are antiquated and located in the prewar buildings. The average age of the buildings of general, clinical and psychiatric hospitals exceeds 60 years. The percentage of hospital buildings in poor technical condition fluctuates from 10 to 20 percent.

The summary index of beds in all facilities of stationary health care per 10,000 inhabitants in the 1970's declined by 1.5 points (from 73.7 to 72.2), whereas in the previous decade it increased by 3.8 points. On the other hand, the index of hospital beds--despite desperate attempts to remedy the situation by means of the so-called pavilion construction--rose by only 3.9 points, whereas in the 1960's its rise (by 7.5 points) was almost twice higher. Taking into consideration an enormous number of antiquated hospitals requiring if not immediate

demolition, then at least general overhaul and modernization, the actual value of this index should be reduced by at least 30 to 40 percent. Even the general index of hospital beds, which does not specify their condition and whether they meet the actual needs of the health service, is actually smaller in Poland than in any other European socialist country (except Yugoslavia). In case of its correction based on these premises, Poland would still find itself at a considerably lower level than, for example, Spain or Yugoslavia immediately after the war.

The tragic situation of Polish hospital management is multiplied by the lack of vacancies in social care homes and homes for pensioners, which causes the overcrowding of hospitals with the chronically sick and handicapped, and by the weakness of the diagnostic base, which contributes to prolonged hospitalization of patients and reduction of the index of hospital bed turnover. Such consequences result from shortcomings of the basic health care. The recently initiated construction of the so-called hospital pavilions, deprived of an adequate diagnostic base, does not help.

Especially difficult is the situation in psychiatric care. Of 41,900 actual beds, 27,200 are situated in hospitals with over one thousand beds, which makes these hospitals unfunctional and worsens accessibility of services. For a considerable number of patients these hospitals fulfill a function of the social care homes. The area per bed amounts to 4.14 m².

It would be difficult, therefore, not to relate a sudden recrudescence of tuberculosis with the fact that of 40,000 hospital beds intended for purposes of phthisiopneumology there were only 15,500 left, of which about 2,300 have no or a poor diagnostic base.

The hospital problem does not, however, end the shortcomings in the construction, repair and modernization of facilities that serve health protection. One ought--if only to achieve indices assumed in the plan--to build 200 rural health centers and about 400 consulting rooms: at the same time it would be necessary to exchange or modernize the majority of installations of the open medical care. They often require repairs and adaptation immediately after completion.

Supplying and Equipping Health Service and Diseases

Until now we spoke only of buildings for health protection. What is the state of its equipment and supply? We could answer briefly: in principle there is a lack of everything, from the most complex, modern diagnostic and medical equipment to ordinary medication, washing agents and items necessary for dietetic nourishment and from artificial kidneys and cobalt bombs to disposable syringes and needles.

The condition of the equipment unquestionably is related directly to the earlier described state of intrahospital infections and the continuing high level of the incidence of viral inflammation of the liver; that is, infectious hepatitis. One simple example shows well the causes and mechanisms of shocking sanitary conditions. We produce 160 million of disposable needles annually, despite an optimum requirement of 270 million. The MIFAMA establishment in Milanówek--the only producer--could manufacture considerably more if it were to receive 63

million zlotys for modernization. At the cost of \$30,000 and with the efforts of its own specialists, it is prepared to construct machines that, if purchased abroad, would cost us \$200,000. The hitch is that no one has calculated precisely costs on a nationwide scale of treatment for patients with infectious hepatitis, which very often develops into a lifelong invalidism (together with costs of prolonged sick leave).

The proportion between the import and export of apparatus and equipment is decidedly out of balance. In 1980, the Ministry of Health received only 50 million foreign exchange zlotys for the import of medical technology equipment, whereas the moderate estimate of specialists is a minimum of one-half billion foreign exchange zlotys.

At the same time, and with the chronic lack of the simplest medical equipment, in the 1970's the export of instruments in short supply was practiced. In 1978, of 38 million manufactured disposable needles, 10 million were exported; in 1979, of 76 million needles produced, 14 million were exported. The Ministry of Machine Engineering Industry demanded that the export be still increased. While surgeons have no instruments with which to operate, until recently almost the entire production of surgical instruments from the plants in Nowy Tomysl was exported. These practices were recently discontinued, but the gap is difficult to make up.

Especially galling and tragic is the lack of equipment for intensive care (domestic production is based on antiquated technical-medical models, and it is difficult to count on the import): light resuscitation kits, modern X-ray apparatus, surgical instruments.

The situation in cardiology and cardiosurgery is typical. According to incomplete and evidently lowered data of the Institute of Cardiology, the annual number of new heart defects in Poland approaches 40,000, including 20,000 in persons below 20. At least 10,000 persons require implantation of artificial valves, while these operations are performed in 400 patients annually. The implantation of artificial pacemakers of the heart in 1979 was performed almost exclusively in critical cases (1,700 cases). Deprived of help was a considerable group of patients whose health could have improved with this procedure. In Poland the index of newly implanted pacemakers in 1978 was 28.7, 2.5 times smaller than that recorded in Czechoslovakia, 6 times smaller than in the GDR and almost 11 times smaller than in the United States (the value of this index is calculated per million inhabitants).

A deepening deficit on the medicine market constitutes a special problem. In 1977, the list of shortages and deficiencies contained 280 items, including a complete lack of 68 items. The most dramatic breakdown of the drug market occurred in 1978 (according to ministry data, we ran short of 470 items; according to Sejm's data, 607, including a total lack of 116 and in 1979 (ministry data, 490).

These data do not give a full picture without specific names of drugs: antibiotics, cardiotonics, specialties used in diseases of alimentary system, analgesics, psychotropics, ophthalmics and almost all vitamins. Even in imported drugs we ran short of antibiotics and antineoplastics. Mandatory reserves

dropped to a few days. The case of enkorton was notorious. A drug indispensable in acute kidney conditions, as an emergency it was flown in from abroad when the clinics had only enough for 4 days. One clinic fell short of infusion fluid, and there was danger that artificial kidneys would be put out of action. The lack of tranquilizers was causing outbursts of aggressiveness among wards of special care homes. Besides the lack of drugs, there was a permanent shortage of dressings. Alarmed by this, the Council of Ministers adopted Resolution No 70/79 for emergency relief of this situation and later ordered the Ministry of the Chemical Industry to work out a program for the development of the pharmaceutical production for the period 1981-85. The interventions in this area have proved to be half measures that did not bring about permanent improvement. On the contrary, in the last quarter of 1980 there was danger of shortage of 536 items (according to Ministry's data), which means that 25 percent of the entries of the official list of drugs were difficult to obtain or unobtainable. This situation is worse than the bad months of late 1978/early 1979; the situation in the health service might become catastrophic.

Where should we look for the causes of this breakdown and what is the way out of the crisis that seems rooted in the economic system itself? We can distinguish several elements:

--in the beginning of the 1970's, POLFA, the largest producer of drugs, had become an initiating unit among large economic organizations (WOG) and shifted to a system of settlements in sale prices. That entailed a natural preference to the production of expensive and material-consuming drugs: all the more so since from 1973 one began to set drug prices at a very high level. Thus, POLFA could cover itself in the settlement of accounts by the sacramental 12 to 14 percent of the mean growth rate, and at the same time, on the material side, could cut start-up manufacture of new products from 40 items in 1975 to 16 in 1979, with an almost complete lack of original research;

--this economic system gave natural priority to the preparation of imported substances and export. With a chronic underinvestment of the technical base this consistently led to shifting into the background the production of the simpler drugs and drugs for the domestic market;

--the same error was committed as in the building industry, where small brickyards were abolished; likewise, destruction of local industry has caused the disappearance of pharmaceutical cooperatives that produced traditional, simple but indispensable medicines such as charcoal, some vitamins, infusion fluids, medicinal herbs, etc. Here too, centralizing activity caused irremediable harm;

--at a certain moment the funds for the import of drugs were mechanically reduced, despite the fact that they often did not exceed 10 percent of the allocations of foreign exchange to other branches of the economy, for example, the metallurgical industry.

Against this general background, formed by a lack of hospital beds, precision apparatus or newest drugs, there were almost elementary deficiencies, the lack of commonplace items. Laboratory glassware broke but was not replaced. The patients rang up the ward nurses but bedpans and urinals were lacking. The

surgeons performed admirable operations but they had no sutures, gauze, bandages, plasters.

Statistical data in the WHO yearbook and other WHO reports on world health conditions give an irresistible impression that only in one respect does Poland not lag behind the majority of developed countries. Per 100,000 of population, in 1979 Poland had 174 physicians, 47 dentists and 422 nurses; the growth rate of these indices shows a rising trend. This trend, however, is almost entirely on paper, since the distribution of cadres is irrational, their work unorganized (they are overburdened with activities not serving directly health of the patients and not requiring the education received).

Inefficiency of the System

To appraise efficiency of the health service system in Poland one may use data accumulated in comparative investigations carried out at the end of the 1960's under WHO auspices in 11 regions, spanning seven countries. From Polish cities, Lodz was selected for this purpose. A secondary analysis of the results of investigations performed initially by the Lodz Institute of Social Medicine was carried out by Dr A. Ryszard (from his work comes the following information). In the Lodz area (which may be considered typical of larger cities of Poland) are serious shortcomings of the system. All indices of the needs of the population of Lodz run above average, and in several cases (gravity of disease, disease-days, psychobiological dysfunctions) these indices attain the maximum for all investigated areas. The patients in the Lodz area are linked rather with the place of health care than with a permanent physician; differences compared with other investigated areas, where over 90 percent of the respondents had a permanent physician, are very essential. At the same time, Lodz is an area with a great degree of physician inaccessibility (only in Rijeka in Yugoslavia is the percentage of persons requiring more time to get in touch with the physician higher).

In the number of physicians per 10,000 inhabitants, Lodz is above average and approaches the maximum. Therefore, the blame for the state of things bear the structure and organization. In Lodz (as in the whole of Poland) specialists clearly outnumber general practitioners. Much health service personnel is inaccessible to patients, probably because they are administrative workers.

The system with which patients have to deal in Poland, notwithstanding the current opinion shaped by propaganda, is not funded by the state, but at the same time is also not substantially paid for by the patients. Thus, it is a system doomed to struggle with enormous difficulties to satisfy health needs (with difficulties that it creates for itself). They are caused by patient contact with a physician limited almost exclusively to an institution (home visits do not exist at all) and by the longest hospitalization compared with all other countries and regions.

This system is not balanced; its needs considerably exceed its resources. For the Lodz area, therefore, all the rates of the intensity of needs will be higher than average, whereas the resources oscillate around average. This results in lower-than-average indices of taking advantage of health care.

For the hospital system serious consequences result from the hiatus between the state of health and the use of medical advice. Obviously, difficulties in getting medical advice in the open medical system must mean the relative overload of hospitals. A further consequence will be the lowering of the health level of the population. As a result, more seriously ill persons land in a hospital. Whereas in other investigated regions per 1,000 persons who during a year did not consult a physician, an average of 9 persons is hospitalized, in Lodz this number reaches 17. Lodz was second in the number of persons whose hospitalization occurred as a result of a serious disease and was "of high urgency." The state of health, or rather that of disease, crosses a certain threshold, and only then the contact with the health service takes place.

Lodz has a model of "expensive substitution." Intensive utilization of the fair-sized resources is not possible. The inpatient medical service is substituted for the outpatient medical service, and overcrowded hospitals substitute for inefficient systems of the social assistance. Such substitution is extremely expensive and functions poorly.

Logically therefore, one of the main causes of the paralysis of the health protection system in Poland must be the inefficiency of basic health care.

One of the causes is the actual isolation of patients from specialists in basic health care. In Poland's extremely hierarchic system the medical service of the first contact, represented mainly by internists, is a most neglected field of medical activity, despite carrying the greatest weight of services. Investigations of the Warsaw population at the beginning and at the end of the 1970's indicate that a district physician is handling three-fourths of extemporary health needs--that is, interventions in acute cases and aggravations of chronic diseases--and is the permanent support in the care of nearly one-half of the adult population. It is easy to conclude that the range of the basic medical assistance on a nationwide scale is considerably greater. Despite persistent pushing of various programs of service development and specialized networks, the share of the basic medical service in the overall medical care of the population has decreased very little during the past decade and continues to form the main base of health assistance.

The several years' observation of one of the district clinics in Ochota indicates that under big-city conditions the basic health care renders one-third of the medical services in chronic diseases, sharing this burden on a par with factory and specialized medical service. A closer analysis shows that among most common chronic diseases requiring conservative treatment (arterial hypertension, bronchitis, diabetes, coronary disease) only diabetes was frequently treated by specialists; the rest were treated mostly by the district and by factory dispensaries. Even without priorities these services take care (better or worse, is a different question) of diseases that according to general opinion constitute a domain of specialized treatment.

Notwithstanding a numerical prevalence in the health services in Warsaw, internists constitute but 8.5 percent of those actively employed in the overall health service (in 1979, per 5,857 of persons working in health care teams, clinics of

the Academy of Medicine, institutes of the ministry [of Health] and in some other medical institutions, there were only 500 such physicians). Investigations of the Institute of Occupational Medicine and Rural Hygiene showed that about 10 percent of rural health centers have no physicians at all, and that 20 percent have no stomatologists. Meanwhile the time study of the working load of rural physicians showed a necessity of doubling their number, in order to fulfill all their prophylactic and medical duties.

The basic health care, taken only as outpatient and home care, should comprise 70 to 80 percent of all health needs (including also medicosocial needs). In a wider sense, however--that is, as a nearest-to-the-home outpatient, home, hospital and emergency assistance--as well as an environmental-social ~~service~~, this line of activity, in the opinion of some experts, might cover 85 to 90 percent of actual, perceptible needs.

A low degree of satisfaction of health needs by basic care means that society does not have access to health services. Because of insufficient fulfillment of its numerical tasks, and especially the quality of the provided care, our system of services, as well as social pressure, prompts the organization of substitutes--improvised, more distant care, the so-called specialized one. These solutions have a highly fragmented structure and function and markedly differentiate the patient's own needs. Each can only fragmentarily satisfy social requirements. To be developed, specialized care, both local and provincial, requires an ever-increasing number of professional cadres that need a long period of training, together with auxiliary workers, special housing, installations and equipment. A vast investment in this specialized care prevents attaining a required level in the development of basic health care, which by its weakness perpetuates this vicious circle.

A fundamental cause of the weakness of basic health care is its programmatic assertiveness, nonsystemic approach and a marked lack of comprehensive solutions of complex problems, with a simultaneous inconsistency in activities undertaken.

These flaws and administrative shortcomings begin with the training of medical students. Those who teach them their profession have little knowledge of the actual health needs of the society. Hence comes the error of the traditional training in the clinic and for the clinic and then erroneous, too-specialized postgraduate education.

The work conditions of physicians, dentists and nurses of the basic health care are inadequate. There are not only the irrationally insufficient level and method of remuneration of professional workers, but also the lack of auxiliary workers--for example, medical secretaries, ward assistants--who could free physician and highly qualified nurses from some tasks. Home care, directed and helped by professional workers of the health service, continues to be wishful thinking. The selection of a physician by the patient is almost a complete impossibility. There is no proper delimitation of aims and methods of care by basic health service general population, industrial work force and youth.

The infinitesimal participation of patients in the organization and guarantee of services conforms to the slight influence of representative organs and local administration (state, gmina, municipal) on the formation of units of basic health care, the building of facilities, acquiring of cadres and equipment and financing the activities.

Despite the announcement and reorganization, the health care teams lack real integration of medical and social care, which causes on one hand the overlapping and duplicating of authority and on the other, frequently untended areas.

When at the turn of the 1960's and 1970's the health care teams were formed, it seemed that this was the most logical system, that it would ensure complete integration of basic and specialized health care, of outpatient and inpatient medical service, of medical care and social assistance, and the adequate elasticity and proper flow of patients among various centers of the health protection, which would form a uniform, efficiently managed and functioning system. Why did that not happen? Probably the weakness of the medical base and bureaucracy should be held responsible. The structure of the system was not changed in the direction of strengthening the basic care; dashed to the ground, like a bubble, were dreams about home and housing estate physicians, there was no expansion of social assistance, which might have taken the strain off hospitals. The uniformity of the system changed into a dull uniformity, contemplating the same solutions for Warsaw and for sub-Carpathian village or Bialystok village. The health care system continues to be an upside-down pyramid.

Growth of Health Needs

Among the causes of the present state of health affairs are demographic and social processes. These processes combined to increase expectations from the health protection.

A significant demographic phenomenon is the aging of Polish society. The share of elderly persons--that is, over 65 years of age--in the population has increased from 1971 to 1980 from 8.41 percent to 10.19 percent, which means a transition from the late transitory phase between youth and old age to the so-called stage of old age proper.

Simultaneously, there was an increase in the number of children 0 to 4 years of age by almost one-third, the average annual number of pregnancies increased almost as much. As mentioned, the number of invalids and the handicapped has also increased. All four groups need intensive health care.

At the same time, in the 1970's--with almost no development of the base--the rural population numbering about 6 million was covered by health services.

The awareness of health needs, increasing pressure on the health protection system, paralleled the growth of education and of employment in the socialized economy. In the 1970's the number of persons with education higher than elementary school increased by 74 percent and of those employed in the socialized sector, by 23 percent. A definite role in the growth of health needs was

played by sui generis whetting the appetites of society, which was systematically made to believe that the life was improving. Thus, perceived needs grew, whereas the potential of health services did not. Thinking unrealistically that it will be possible to do so without increasing the means, people attempted to satisfy those needs. Meanwhile, buildings and monuments chiefly to glorify the authorities were not lacking. Until now actual problems were not solved; professional cadres were siphoned from the basic health care and other units.

Despite some undoubtedly positive phenomena in the domain of health needs, unfortunately there is no foundation for optimism. This is even more true, as many negative health phenomena arise in the areas completely unrelated to the health service itself, for which the health service cannot be held responsible. Phenomena associated with industrialization, such as pollution, or the development of motorization generate danger to the health of the nation. Nutrition--this probably cannot be argued--is likewise of great importance. The danger here is twofold: the continuing bad state of the food supply in the long run endangers health, especially of the younger generation, and at the same time worsens, sometimes drastically, the quality of foodstuffs, even to toxicity (for example, milk). These phenomena, if continued for a protracted period, will adversely affect the biological state of society.

Part Two

Health Protection--Prospects of Changes

The preceding diagnosis, despite being incomplete, permits certain conclusions. Before that, let us make a general remark. Professionals may consider the text relating to particular fields as too general or simply truistic, whereas nonprofessionals may regard it as too specialized. We would ask for letters from both professionals and nonprofessionals and from those who simply would like to express their views on health subjects, whether or not discussed here. We will appreciate any information that would contribute to a subsequent fuller and better report. The letters should be addressed to the editor of ZYCIE I NOWOCZESNOSC, with a subscript: Konwersatorium "Dowiadczanie i Przyszlosc," Zespól dla Zdrowia.

I. Resources and Methods

1. General Conditions. Although this study is limited to matters directly connected with the Ministry of Health and Social Welfare, we must again emphasize that of decisive importance for the collective health are factors beyond the ministry; in the first place nutrition; purity of water, air and soil; conditions of housing, conditions of work--in short, the state of man's environment. Also important are various elements of the lifestyle of the individual, such as smoking, use of alcohol, various hygienic habits, rest, road accidents, use of the health service, general health education, etc.

The state of health in great measure results from all these factors, whose consequences manifest themselves within the pale of the health protection system. For this reason even an ideal organization would be not much help, if not accompanied, or rather preceded, by the corresponding action in almost all domains

of social life. In other words, the social health is too involved a matter to leave in the hands of the physicians themselves.

The consequences of various "extraministerial" factors, which manifest themselves within the sphere of health service activities, are of less direct nature; for example, nutrition. The influence of the health service itself on the occurrence of diseases is sometimes unquestionable; for example, the intrahospital infections, or the spread of implanted hepatitis, though this too may be considered as a dysfunction of the whole social system (failure to produce cleaning agents and disposable devices).

2. Publication and Honesty of Information. Until August 1980 society was deprived of comprehensive information on matters most vital to it: the elementary knowledge about the harmfulness of environmental pollution affecting the health and well-being of individuals and groups and determining the living conditions and biological substances of the nation. The prohibition to print included all information on mass poisonings and diseases; on food poisonings in vacation centers, cafeterias of workplaces and summer camps; on epidemics of infectious diseases (including flu); on alcohol consumption; on road accidents. The prohibition also concerned information on the danger to health and life caused by industry chemical agents used in agriculture. At random, in a guarded manner, news appeared in print about the pollution of the air, water, soil and foodstuffs and about the location of industrial plants that poison the environment. On the other hand, a prohibition covered the danger to the health of workers employed in producing harmful chemical products—for example, polyvinylchloride—and the danger of many materials in their production or their introduction on the market. That should be remembered.

This is related to information on the functioning of the health protection system. Reporting this subject was never based on the merits of the case in full. Information was concealed from society about the drug supply, the extent and cost of "special" medication (do not mistake it for specialized), the management of the National Fund of Health Protection, the situation with the Children's Health Center, etc. Until the last half of 1980, this coverage was taboo.

It is difficult to determine whether facts known to the health service authorities were concealed and where it was simple ignorance. The health service—in the whole world—is characterized by the deficiency of the information necessary to manage such a powerful system as the health service system of an industrialized country. It seems, however, that Poland is yet distinguished in this respect by an especially high level of ignorance—if only as regards the basic economic problems such as the share of the health service in the state budget and in the national income, the distribution of finances within the Ministry (for example, how much is earmarked for basic medical service and social assistance, compared with other branches of medicine), to what extent this system is not balanced. (This imbalance is shown in the example of Lodz in the analysis of the efficiency of the system, as well as the undertaking of enormous programs without corresponding resources: the medical coverage of the countryside, the guarantee of health care to the work force at large, the program to combat cardiovascular disease, the program to combat cancer, etc., such programs in these conditions had to be fictitious).

A separate, highly important question is the collection of information on society's health. We will limit ourselves to stating that regardless of the adopted methods and indices (mortality, sick leave, use of health service units, results of mass investigations, general and individual diseases, etc), they should relate to definite people and not anonymous "disease cases," as now practices. Diseases occur as if in a void, separated from other spheres of social life; this lessens the effect of medical activity, both prophylactic and therapeutic.

Investigation of the health of the population and health care can serve various purposes; for example, to determine economic tasks of the country defense requirements, to plan health service and social policy. The present reporting helps (at least in theory) to plan health service, whereas it is useless in social policy; this is reflected in the actual health care among various strata and communities and in the state of their health. For example, how can we successfully combat infant mortality, if it is not known exactly in which families and environments infants die most frequently? The knowledge of social differentiation and inequalities in Poland is indispensable in order to make sense of such measurements as the average lifetime. We know how long the average woman and man in Poland live, but this is not enough. Some results of sociological investigations throw light on the use of health service and social assistance by different strata and groups but we are still far from the basic information on this subject.

3. Change of Approach to Phenomena of Health and Disease. This last question relates not only to Poland, but we cannot omit it when speaking of a good, modern information. Traditional indices of community health (measurements of diseases) do not suffice to determine and solve health problems of developed societies. A diagnosis of disease on the basis of a pathological change of the organism omits an enormous number of persons with health problems outside the official classifications. Two groups are involved. First are those who consult a doctor with problems of no perceptible organic nature: a "psychological disease," "psychosocial discomfort"; that is, a reaction to stresses and tensions of family, occupational and social life, accompanied by various noxiousnesses characteristic of industrialized societies. Such patients are beginning to be a majority in the waiting rooms of some physicians, not necessarily psychiatrists. The second group consists of persons in whom diagnosis of a pathological change is of rather small importance. Primarily these are older persons, whose ability to function is lowered by age and sometimes accompanied by chronic conditions such as rheumatism and impaired sight or hearing. As the populations of industrialized countries age the key position in the picture of diseases is occupied by incurable, long-lasting, chronic diseases, typical of the older groups of the population and responsible for an irreversible limitation of efficiency.

The biotechnical progress of medicine entails similar implications. People in different age groups--for example, from the newborn with congenital defects to the victims of automobile accidents--who even a few years ago would surely die, now survive, but their life efficiency is limited and that is the main problem. In such situations it is rather less important to discover the cause and diagnose the disease, than to answer the question of "what follows from that," how to cope with the consequences of the given disease or disability, which after all are different for each person. Of importance is not the classical treatment, but the restoration of daily activities and the facilitation of life under conditions of permanent disability.

As mentioned earlier, the number of dependent persons--that is, the number of invalids, cripples, the infirm and handicapped--is growing. The basic characteristic of all these persons is dysfunction: impairment, limitation of physical or mental efficiency and protracted, partial or total inability to perform vital roles and tasks. This situation requires actions called rehabilitation, revalidation (sic), adaptation, integration, which greatly depart from basic medical treatment and from the accepted classification of health and disease. The states described are expressed in functional, not clinical, categories; fall within the scope of completely different phenomena; and are subject to different methods of investigation and actions. The individual efficiency of each person, closely related to the social situation, becomes the basic criterion of health.

Medicine is best prepared to deal with a disease that ends with the restoration of health, leaving no consequences of lowered vital activity. For ages it based itself on pharmacological and surgical intervention; its chief aim was to save lives. Before our eyes, medicine transformed itself into an institution whose main task is prolonging life and, closely linked with this, dealing with the consequences of diseases.

The switch to combat the consequences of diseases is a difficult and extended process. Deep changes must undergo the national apparatus, the systems of training and educating professional cadres, and the whole character of medical institutions and the health service, in general. This already is being understood in the leading scientific centers and the World Health Organization. In connection with this, the demand is rising for psychologists, sociologists and social workers.

4. Material Base and Organization. We begin with an invocation: let the angels protect us against a successive reorganization; for example, this time the suppression of the health care teams. This might not be endured even by the most healthy people. Our program follows:

- make sure that the ministry really receives at least 7 percent of the national income;

- concentrate on the sorting and elimination of most important deficits, and on rather small corrections; a considerable part of the 7 percent should be earmarked for saving the existing base, for adapting buildings and premises being turned over to the health service by various institutions in order to provide hospital beds, primarily through discharging recovering patients. This is related to the immediate construction of the social care homes and the adaptation of various buildings for this purpose. It is also related to a different view of a hospital; instead of being a repository for the chronically sick, hospitals should be the site of intensive care and therapy. For this, apparatus and equipment must be developed;

- ensure nationwide that every home, especially a new one, have a support base with sufficient medical and social infrastructure at least in the form of an outpatient surgery and pharmacy. This concerns particularly new residential areas. The construction of health service units should be a part of the housing program;

--give priority to supplies of medicines and dressings and treat these supplies on a par with supplies of foodstuffs; give the domestic market absolute priority over export, except for a matter of profitable exchange for the benefit of health protection; take immediate steps to ensure that pharmacies and inpatient medical service always have a full assortment of drugs and lifesaving equipment as well as dressings. There can be no deviation from this principle, its functioning must be assured by all possible means, and those responsible for its breach should be prosecuted for endangering human life. Moreover, in order to ensure the continual supply of the simplest drugs, it is necessary to restore small industry and pharmaceutical handicraft. Additional investments in POLFA and HERBAPOL are indispensable:

--perform the analysis of the use made of physicians. With a relatively high number of physicians in Poland, why is there a continual shortage, not infrequently "catastrophical," in almost all fields, even in Warsaw, which possesses one of the highest European indices of the number of physicians in relation to the population?

--review the qualifications of our physicians from the viewpoint of their professional level according to international standards. It seems that we have good physicians. On the other hand, there is news that they are not doing well in tests used by foreign examiners (for example, for scholarships). It appears that they show particular shortcomings in basic medical knowledge.

--restore status to nursing the sick. We are not expanding this important question--it requires a separate study. It is related to the more general problem of the rank and file of health service workers, beginning with hospital ward attendants;

--verify that among the health service personnel the professionals constitute 45 percent and the nonprofessionals, 55 percent, some are indispensable technical and managerial personnel, but others are primarily administrative workers, generally with low qualifications. They cannot replace the necessary workers such as medical secretaries (males or females).

5. A Look into the Future. By implementing these assumptions within a few years we will perhaps reach a reform of the health service system, with a radical reconstruction in the direction of all industrialized countries. This consists in reversing the pyramid, in basing the whole edifice on a strong foundation: the basic mediosocial care. If this foundation fails, the whole edifice totters. It becomes a colossus with feet of clay and is dysfunctional. No health service system will be able to realize its main goals until it is founded on the basic care for man in his natural environment.

Such reform is very difficult. As well known, in the accepted model the most important aspect was a highly specialized clinic. In Poland, the latter has considerable shortcomings, but nonetheless this ideology determines the system of training physicians and nurses, shapes professional values and also a distribution of material funds within the framework of the health service budget. It would be nonsensical to ask for an automatic limitation of the funds for specialized clinical centers in Poland without a thorough analysis of each. Some

of them should be expanded. But from the viewpoint of the community, specialized clinical care barely satisfies a small percentage of the health needs of society. On the other hand, among the remaining enormous majority of insufficiently cared for needs, the basic care should be most important. If it functioned correctly, the basic care would to a great extent relieve the strain on specialized units, which could then concentrate on purposes for which they were created.

II. Goals, Distant and Near

Until now we were speaking of resources, methods and the absolute necessity of changes in the spheres of information, distribution of centers, improvement of the material base, organization of health protection, etc. We can now attempt to formulate the aims--aims distant and near--for our health service. Moreover, these aims are realistic, and some can even be attained rapidly in a rather simple way, if the basic conditions mentioned in the section "Resources and Methods" are fulfilled.

We mention three of the immediate aims: elimination or considerable decrease of intrahospital infections, of viral hepatitis, especially of type B (implanted jaundice), and of tuberculosis.

The fight against intrahospital infections is after all related not only to a necessary renovation of rooms, the repair and modernization of the base, relieving its congestion, but also with such an apparently simple measure (given the essential shortcoming of the market) as an increase of the allotment of cleansing agents; the shortage of the personnel should be mitigated by the introduction of automatic washing equipment.

Indispensable also are, however, more complex measures, in the first place a weak base of bacteriological laboratories, which are unable either to make a proper diagnosis or help in instituting therapy. We need to form well-equipped and qualified diagnostic teams in this field, whose experience and help might benefit other units of the health service. A registration system of infections and their analysis has been developed in a proposal by the Team for Bacterial and Viral Matters on the order of the Minister of Health and Social Welfare two years ago. Thus, a shock campaign against intrahospital infections--under the supervision and coordination of the voivodship sanitary-epidemiological stations--is not only necessary but also possible and inevitably successful.

Similarly, with the viral inflammation of the liver, type B or infectious hepatitis, in Poland there is a specialized base for the production of disposable implements; it is producing, however, under difficult conditions. Its development does not require huge outlays and investment. We must ensure the priority of the domestic market over exports (for needles), and perhaps also ensure--until development of the base--a rather small import. Also, it is necessary, for the effective elimination of the infectious hepatitis, to expand the sterilization base to include equipment that is the not latest technical and medical development but is long used even in the countries below our level of economic development.

With tuberculosis, it is necessary simply to restore the network of units, which existed in the past, produced excellent effects in combatting this disease and were prematurely abolished.

We are not unrealistic in maintaining that a prompt, concentrated attack in these three directions may soon produce a visible improvement of the situation.

In the realization of more distant aims, one might suspect that we will not say anything particularly new. The programs undertaken in the 1970's by the authorities and the Ministry of Health—for example, the programs for combatting neoplasms, circulatory diseases, care of mother and child, rehabilitation, improvement of health of the work force—were correctly formulated and tended in the proper direction. They had only one flaw: in the system of the "reversed pyramid" and the lack of funds, they were unrealistic.

Not discounting the necessity of building some large centers, for example, of oncology (the existing institute for a long time was cramped for space), we wish to emphasize that these programs must be first moved "from the institution to the people"; that is, to the level of the basic health service. Only there can they produce results. The success of many of them depend after all on the wider changes related to political events in Poland. For example, the protection of the health of the work force is related, on the one hand, to the creation of the State Labor Inspection, subordinated through the Supreme Chamber of Control to Sejm, and, on the other hand, to formation of the new, independent and self-governing trade unions, which appoint both authentic social labor inspection and produce social funds for the health needs of workers. Against this background one should consider the reform of the National Fund of Health Protection, so that under social control it would cease to be a fiction.

We do not wish to engage in detailed consideration of these problems, for each deserves separate discussion. We would like to single out only two phenomena. One is psychiatry. The situation here is tragic, even in the generally joyless picture of our medicine. After all, there is no problem of psychiatry as such, only a problem of the mental health of the people. It requires prompt and decisive decisions.

The second matter is the general problem of "dependent groups," the situation of elderly and aging people. This is related to demographic changes of Polish society; the allotment for the protection of this group seems indispensable. One cannot, although in great measure it is necessary, depend only on the good will of men.

III. Toward Model Changes

It is necessary, in the immediate future, to begin the process of democratization of health protection. This process began as a phenomenon related to the overall changes of the summer and fall of 1980. Health problems figured prominently in strikers' demands, and immediately after the great wave of workers' protest, the protest of the health service workers, raised not only on their own behalf but also in the name of patients, drew the attention of the public and authorities to the dramatic health situation. Characteristically, despite the great number of pressure groups in Poland—for example, various industrial lobbies—the health service has never formed such a group; it never had such influence. Only with the wave of rank-and-file revolutionary changes came the first such pressure group, not mainly from physicians but from rank-and-file medical personnel.

As the whole world knows, the era of scientific-technical revolution has brought about changes also in medicine: its technicality, engineering orientation, tendency toward specialization, etc. It contributed to the creation of a model in which man is born, is sick and dies, not at home but in a hospital or other closed institution. This often was and is a blessing for a patient because of expert care, medications and apparatus. It also has bad features, for such a model is easily changed into a depersonalized, centralized system, in which the individual-patient is lost and defenseless. His separation from the environment, home and family likewise often has adverse effects on his health. In our practice, because of local character, the centralized system has become fossilized into a red-tape structure. A rigid framework of the model cannot envisage nonconventional solutions and regional and local diversity; this structure had no built-in mechanisms to stimulate some spontaneous initiatives and undertakings from rank-and-file workers.

The medical system that was created by the modern civilization has in it the seeds of the inverse processes. The physician often ceases to be a central personage in it and loses exclusiveness. Other specialties appear--highly qualified nurses and psychologists in psychiatry; social assistants, and in fields like orthopedics, in both treatment and rehabilitation, physiotherapists, motor therapists, physical education specialists, engineers and technicians making equipment and artificial limbs, etc. In many clinics the autocratic management of the clinic head is supplanted gradually by the so-called therapeutic team, a more democratic form of management and organization. These changes, albeit with difficulty, are beginning in some units of the Polish health service.

However, we speak constantly of the eventual changes in the system. It is a mistake often repeated: while discussing health protection and a need for its reform, we see only that centralized structure and ponder how to improve it. Meanwhile a mass of patients undergoes treatment outside it. There are physicians' cooperatives, private practices, healers and quacks; we know little about this other structure and relations in it. After all, it does affect the functioning of the social health service.

Moreover, health is too important to leave in the hands of physicians alone. Also despite resistance, but nonetheless beginning are the informal groups and structures that cultivate certain health-related behavior, for example, the AA (Alcoholics Anonymous) clubs, clubs of invalids or other groups of mutual aid. They often benefit from the help of professionals only in the sense of advice and consultation; not infrequently, they practice a sort of self-cure.

As the level of general education and medical education rises, such forms will multiply. This should be greeted as a positive phenomenon. We will not solve the problem of chronically sick persons, the handicapped and decrepit persons without help at their home, in their own environment and without participation of persons whose chief qualification is good will. Many persons will recover the physical and mental fitness, achievable in their situation, and a better frame of mind more quickly in their natural environment than in an isolated, closed institution. The role of the physician or medical personnel in these arrangements will diminish to a professional supervision, help and intervention, friendly advice and assistance in spontaneous and rank-and-file initiatives. We should consider once more the role of the family--especially, despite current opinions,

families, even in difficult conditions, often take upon themselves the burden of care of sick relatives.

Therefore, not only will the role of the professional social worker--also a member of the structure grow, but also that of the nonprofessional therapist. The effectiveness of such nonprofessional therapists, who were only extemporaneously trained in preliminaries, has been highly appraised, though not in Poland, in investigations in the area of psychiatry.

Broadly conceived basic health care should not, therefore, be limited to medical intervention and prophylaxis but encompass mutual aid, family care and finally the responsibility of man for his own health-related behavior; to depend only on outside advice and help is an erroneous approach to health matters.

One should not, therefore, imagine a correctly functioning model of health protection as some closed, hermetic, technical and centralized system. The system must be open, intermingling with other areas. We cannot mark limits where health matters begin and end. As already said, health is a part and a derivative of the social, political and economic system, its true reflection and often its distorting mirror. We cannot approach utopia and propose an open model of basic care, for example, in the present housing and transportation situation. The reform of the health protection, although it has its specific character, can be accomplished only with a reform of the whole republic.

Warsaw, November 1980-February 1981

A Postscript of the Authors of the Study

On 17 March the PZPR Central Committee Political Bureau met and considered many postulates of the physicians and patients' environment, contained also in the present study. It has resolved emergency steps aimed at the improvement of the health service wherever possible. The most important determinations were:

--increased expenditures in the state budget for health protection from 4.5 to 6.5 percent (close to the 7 percent in the study);

--improvement in the supply of drugs through the increase of foreign exchange intended for the purchase of drugs in payment area II from 140 million foreign exchange zlotys last year to 200 million foreign exchange zlotys;

--allocation of additional funds to the Ministry of Chemical Industry for the purchase of indispensable raw materials from import; the ministry was obligated to ensure the supply of basic drugs from a special list (this also agrees with suggestions of the study);

--obligation of the domestic industry to increase supplies of apparatus and medical equipment;

--increase of the number of automobiles for the health service and the allocation of automobiles to physicians on the basis of installment payments.

A number of long-range decisions were made in such basic matters as reorganization of the health service, the fight with alcoholism, the utilization of the National Fund for Health Protection. All privileged supplies of drugs for polyclinics and pharmacies were abolished (this too agrees with the content of this study).

This is, obviously, only the beginning, but it is good that it has been made. It gives hope that the situation in health protection will steadily improve and that the postulates of many social studies, including this one, will be implemented.

For the time being, however, this text is left without changes, but with expectations that soon it will be history.

Appeal of Polish Physicians

We are not signing this appeal with the names of any Polish physicians, since we present problems and proposals obvious to any physician.

The last several dozen years of advances in medicine have produced in our patients and partly in ourselves a conviction that the matters of health should be entirely entrusted to physicians and their medical coworkers. Meanwhile the medical world is specializing in combatting diseases, in treatment. Given the present state of the health service, and its present system, no one can expect more from us. You, our patients, must therefore understand that our possibilities are limited.

The present difficulties in our country are still more limiting our possibilities. We have a shortage of medicine; the food situation might seriously affect the health of Polish society. Is there a way out, if we cannot improve this situation all at once?

We, the physicians, are answering yes, the fatal effect of malnutrition and faulty nutrition can be minimized under one condition. Each of our fellow citizens must become aware that his health to a decisive degree depends on himself. He must also become aware that the costs and consequences of his neglect of his health are borne by all, the entire society.

Our medical recommendations and suggestions are not going too far. They are expressed by the following four postulates:

First, we suggest that any person above 18 years of age who uses alcohol limit the consumption of alcohol to a maximum of 1 liter of vodka a month. We do not mean here alcoholics requiring treatment; we have in mind the average citizens for whom, with insufficient nutrition, even 1 liter of vodka a month is a serious danger to health, both long-range and immediate, with a lowered power of resistance to alcohol and ensuing car accidents and accidents at work. We suggest that trade unions consider introducing, as the Swedes do, coupons for alcohol, limiting the number of places where alcohol is sold, and starting simultaneously an energetic social action against places illegally selling and producing liquor.

Second, we are a leader in the number of cigarettes smoked in the entire world. Given the present invasion of circulatory diseases and neoplasms, which are promoted by smoking, and given the present recurrence of tuberculosis, this

condition doubly endangers ill-nourished persons. We suggest therefore to smokers a minimum program: limiting, at least for a year, the number of cigarettes smoked to one-half, as well as not smoking in the presence of nonsmokers and children.

Third, we ourselves can counteract the increasing danger of circulatory diseases, including heart diseases. We need not much for this: simply more movement. Physical exercise for 10, 15 minutes, twice a day is a minimum. Some recreational jogging (we emphasize recreational—that is, not record-seeking, rather a jogtrot, as recommended by Jan Mulak) ought to become a habit of each of us, on a par with physical exercise. The "sitting" and "standing" way of life kills us gradually in the same way as the abuse of alcohol and cigarettes. Without your effort, we will not be able to counteract your varicose veins, anoxia of cardiac muscle, insufficiency of circulatory system and dangers caused by insufficient work of your lungs. Our medical skills, drugs and medical equipment are not sufficient, especially since we intervene with them already during disease, instead of counteract it, as we should.

Fourth, with a shortage of food and disastrous supplies we should pay much greater attention to food components. We eat usually things that we like; when these are not available, we eat what is. All mass media have reminded their audiences which nutritional components are indispensable for health and in what foods they are available so that everyone with access to various foods would know how to compensate for himself and his children. Perhaps even in the present difficult period we will, thus, be able to utilize more rational nutrition, to counteract obesity caused not only by the lack of movement but also by the excess starch, potato meals, sweets and fats. We urge you to utilize every free patch of soil, especially in the urban and suburban areas, for the cultivation of vegetables, using a system of allotment plots; this will provide movement and the needed nutritional components.

We do not demand and do not expect too much. We all must survive the year not only mentally resistant but also physically healthy. We physicians cannot provide this to you. You must help yourself.

We ask you kindly to publish this appeal in all the generally accessible Polish press, including newspapers and bulletins of trade unions; we ask also to read it on radio, television, in churches and over the factory broadcasting centers. Thank you.

Polish Physicians

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CSO: 2600/213

BRIEFS

EEC AID TO POLAND--Warsaw, 17 Sep (PAP)--The government [words indistinct] state Kurt Becker denounced at yesterday's news conference in Bonn the allegations published by some German newspapers that FRG's representative at the EEC conference in Brussels voiced a veto against his country's participation in the Common Market's third action of economic aid to Poland, ZYCIE WARSZAWY correspondent reported. Simultaneously, Kurt Becker confirmed that the FRG Government has not given its consent so far for the issue to be settled by the EEC definitely. He explained that the FRG was surprised not so much by the volume of credits sought by Poland as by the date of their realization which made Bonn's representative unable to give his approval. The decision on the issue of the FRG contributing 350 million marks to the EEC's planned credit aid to Poland must be first approved by the FRG cabinet which cannot be done unless the EEC submits the necessary documentation of the undertaken project. Only after the FRG Government receives a formal draft from Brussels will it be able to give a definite reply, he stressed. [Text] [LD171520 Warsaw PAP in English 1414 GMT 17 Sep 81]

CSO: 2600/23

HIGH INTEREST RATES 'EXPLOITING' DEVELOPING COUNTRIES

Bucharest REVISTA ECONOMICA in Romanian No 39 25 Sep 81 pp 23-24

[Article by Ilie Magura: "The System of Exaggerated Interest Rates, A Practice of Neocolonialist Exploitation"]

[Text] Recently, international economic relations have been confronted by a new major difficulty with negative effects upon all countries and with unusually serious effects especially upon the developing nations: the growth of interest rates on the world money markets to record levels and the considerable increase in the costs of credit given by specialized institutions, be they public or private. Initially unleashed in 1978-1979 and resumed with greater force in the second part of 1980, the continuing escalation of the interest rates has been superimposed over other negative phenomena that currently are disturbing the world economy - the energy crisis, inflation, the imbalance of international payments, fluctuations in the exchange rates, the foreign debt of the developing nations - aggravating and making more difficult the task of eliminating the underdevelopment in which two-thirds of the world's population still finds itself. The policy of high interest rates, a neocolonialist practice through which the most developed capitalist countries pursue the continuance of the exploitation of the lesser developed countries and the accumulation of new wealth at their expense, constitutes one of the principal factors that not only impedes the elimination of underdevelopment, but also contributes considerably to its aggravation.

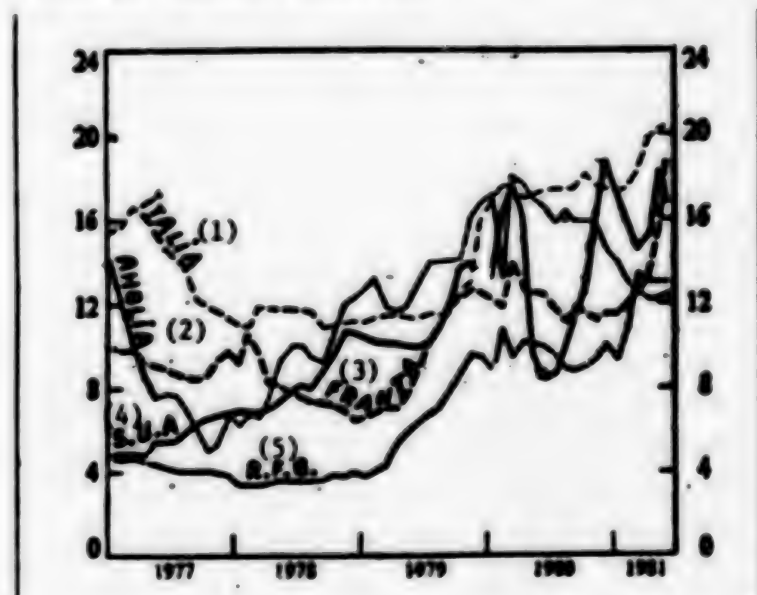
A Deliberate Policy

The analysis of the current situation begins with the mechanism of interest rates in the capitalist economy. Interest rates in the Western money markets have, as is known, a cyclical evolution over time, following the trends of economic circumstances in these countries. During the periods of situational increases, the interest rates, initially at a relatively low level, were increased gradually as a result of an increase in the demand for credit. The state's intervention in the market economy completes this cycle: banking-financial officials in the capitalist countries adjust the level of interest rates for the purpose of influencing the situational climate in one direction or another. Thus, during recessions there normally is a reduction in the official rate of discount and other "key interest rates," starting a general downward movement in interest rates for the purpose of improving economic activities.

In reality, the interest rate mechanism is much more complicated because of the diversity of credit operations that take place in a modern economy. This is the source of a diversity of different interest rates of greater or lesser scope and their levels depending upon the type of credit, the national or international market where it is negotiated, the institute that issues it and so forth.

Two broad categories of credit can be identified: short-term (up to 1 year) and medium- and long-term (over 1 year). While interest rates for short-term credit are very sensitive to the situational climate, showing significant fluctuations depending upon the evolution of economic and governmental political activities, interest rates for medium- and long-term credit are more stable.

The Evolution of Interest Rates for Short-Term Credit in Several of the Principal Western Countries



Key:

- | | |
|------------|------------------|
| 1. Italy | 4. United States |
| 2. England | 5. West Germany |
| 3. France | |

Despite this diversity, the general evolution of interest rates has produced fairly close curves, as can be seen in the chart above. Of significance is the evolution of the short-term interest rates since they constitute the basis for stability for long-term interest rates and reflect the majority of the influential factors, including the central role played by official monetary policy. In this regard, the statistical data in the chart, taken from the 1981 report of the International Monetary Fund, show that against a background of certain noticeable

oscillations from month to month the general trend for short-term credit interest rates was upward in all the Western countries and especially in the United States, Canada, Italy and Great Britain. This graphically demonstrates that we are talking about a deliberate policy used as a means of neocolonialist exploitation of the developing nations. Keeping in mind the diversity of the credits that we mentioned, the International Monetary Fund report illustrated the trend in interest rates for a certain type of credit (a 3-month term note negotiable on the national monetary markets). For other categories of short-term credit, the interest rates reached even higher levels. In the United States, interest rates on preferential loans (short-term current credit granted by American commercial banks to clients having solid references) reached 22-23 percent this summer. It is clear that if a client having solid references (that is, a company whose financial standing is doubted by no one, for example General Motors) receives an interest rate of 23 percent, the interest rate asked on credits given to a client having a more precarious financial situation could easily reach 25 to 30 percent.

A Factor Aggravating the Contradictions in the World Economy

Such interest levels constitute absolute records for many Western countries. Similarly, the rapidity with which the escalation of rates took place has few precedents in modern economic history (in the United States, in just the second half of 1980 there was an increase of approximately 10 percent in the short-term interest rate). How can these phenomena be explained?

Without having the pretention to give a definitive and complete explanation, a primary cause of the record level of interest rates must be sought in the multiple aspects of the crisis of a social, economic and political nature that worry the capitalist countries. It is fitting for us to give separate attention to inflation, this "incurable malady" of contemporary capitalism. The aggravation of inflation and its permanent establishment have brought along with them the growth of the nominal interest rates since any creditor wants the interest to cover the inflationist erosion of the buying power of the money.

Second, the high level of interest rates is explained by the furthering of inter-Western contradictions and by the true "interest rates war" that the developed capitalist countries are involved in. The OCED meeting in June of this year and the meeting of the chiefs of state and government from the principal Western countries in Ottawa in July clearly demonstrated this fact. Directly hit in their national interests by the United States' restrictive monetary policy, which has generated the rise in interest rates in that country, the movement of capital towards the American market and the substantial growth of the strength of the dollar, the Western European countries went ahead on their part to increase domestic rates in order to protect their national currency and avoid making their imports more expensive. The much disputed dilemma of inflation-unemployment and the rhetorical

confrontations over the objectives of the Western countries' economic policies have resulted in nothing but a generalization and permanent establishment of the record level of interest rates that bring damage to all countries and especially the developing nations that are put into the situation of resorting to new credits to be able to pay-off the terms of older loans, at the price of increasing their foreign debt. Not by chance the annual amount to repay foreign debt has come to represent one-fourth of the value of incomes earned from exports for the non-petroleum exporting developing nations.

Finally, one of the fundamental causes of the record level of interest rates lies in the orientation towards monetarism in the economic policies in a number of Western countries, especially in the United States and Great Britain. The rapid, sudden growth in interest rates stems, as a result, from a deliberate policy based on the belief that such a therapy will be able to cure the Western economies of inflation.

As it has been defined to date, the monetarist policy, the policy of high interest rates appears as a simplistic orientation of economic thought that accentuates a single macroeconomic correlation - that between the supply of money and prices - without taking into account the complexity of modern economies and the diverse factors that determine the inflationary process in our times. What is more disquieting is the "negligence" with which the monetarist policy deals with the effects of high interest rates. Being omnipresent in any modern economy, credit and credit conditions have deep, long-term and structural effects with many ramifications on each aspect of economic activities. Making credit more expensive cannot be treated as a simple phenomenon, especially when it exceeds any reasonable limit and doubles or triples the level of the rates in a short period of time.

"The monetarist brake" and the policy of high interest rates must be operated within rational limits, keeping in mind the recessionist effects of discouraging and even blocking investments and trade brought on by making credit more expensive, both in the national and international levels. Under the conditions of the growing interdependencies in the contemporary world economy, it seems ever clearer the manner in which domestic economic measures of proportions impact upon other countries, especially if these restrictive measures are taken by the developed countries which have the major percentage of international trade. The United States' restrictive monetary policy and the inter-Western interest rates war thus become global phenomena with effects upon all countries. And, global effects involve global responsibilities.

A Generalized Negative Impact

The unfavorable effects of a high interest rate are felt in all countries, large or small, developed or developing, in all the areas of international trade and the world economy.

As mentioned in the 1981 GATT report, the volume of international trade grew by only 1.5 percent in 1980 and could fall this year due to the extension of the

recession in the Western countries, with this later problem being a direct cause of the high interest rates. The 20 percent increase in the value of international trade in 1980 is not significant, as the GATT experts stressed, since it includes the inflationist increases in prices and the fluctuations in hard currency rates. Beyond the value increases, the real evolution of the volume of international trade denotes a quasi-stagnation and this can be directly and indirectly attributed to the high interest rates.

Participation in international economic trade is influenced by the situational climate in the exporting and importing countries, as well as by the financing conditions for trade. The main Western sales markets are experiencing a low demand as a result of the extension of the recession, the stagnation of investments and the restriction in the volume of business brought on by the increased costs of credit. At the same time, financing of international trade is passing through difficult times, with export-import operations, acquisition of stocks of goods and so forth being difficult to achieve profits on under conditions of certain interest rates whose level is usually at 15-20 percent. Similarly, international trade was affected by the value oscillations of the dollar (the main international money for payments) and by the growth and sudden shrinkage of the price of this money under the influence of the similar oscillations of the interest rates in the United States.

On the international money markets, the level of the interest rates has increased in step with that of the money markets in the main Western countries. Thus, on the eurodollar market, one of the important sources for financing international trade, the level of interest rates followed that in the U.S., reaching 20-23 percent and becoming prohibitive for many of the participants in the world economic process. Since public financial institutions, national or international, for their part attract resources from the money markets, there was an increase in the interest rates and the long-term credits granted by these institutions. Thus, the World Bank recently decided to have an increase from 10.6 percent to 11.6 percent in the interest rates for credits granted by this bank for the purpose of achieving certain development projects.

Confronted by such ever more onerous credit conditions, all countries are forced to proceed with a reorientation in their strategy for economic development. It is a significant fact that many strongly developed countries, having a solid economic-financial situation, are also fully feeling the increased costs of credit. The policy of combatting unemployment initiated by the new socialist government in France is encountering serious difficulties in this context. We encounter similar situations in West Germany and the Nordic countries. Summarizing this problem, France's minister of finance recently stated that "the high rate of interest in the United States has the economic effects of a third oil crisis; the U.S., without being concerned about the rest of the world, is carrying out a policy of accentuated growth in interest rates and the value of the dollar that is creating difficulties for the Western European economies and other countries in the world, especially the developing nations."

Actually, if the impact of the high interest rates is so great for the developed countries, in the case of the developing nations it can be fatal. Brazil's minister of finance mentioned in this regard that his country is less affected by increases in the price of crude oil than by the increase in interest rates. For a foreign debt of over 50 billion dollars, an increase of one percent in the interest rate means Brazil makes additional foreign payments of 500 million dollars. The increase in the foreign payments that the developing nations must make as a result of increases in interest rates must be correlated with the decrease in incomes from exports brought about by the recession in the Western countries and the relative decrease in the prices for some raw materials. The flow of funds into the developing nations' accounts for development assistance do not, as a result, cover the growing volume of foreign payments brought about by the increases in interest rates. Currently, it is estimated that the level of interest has come to represent approximately 40 percent of the total amount of foreign debt for the developing nations. The growth in the level of interest constitutes as a result a means of drying up the already modest resources of the "third world" countries and of aggravating the contradictions in the world economy by robbing the developing nations in this manner.

In light of these negative effects and the serious difficulties created by raising interest rates for all countries, it is clearly seen that the policy of exaggerated interest rates, deliberately carried out in some countries, constitutes a means of attaining certain unilateral objectives and advantages that are contrary to the major interests of the other countries, of the overall world economy and of the development of trade between nations, and that especially impact upon the developing nations. It is clearly necessary to put an end to this situation and to decisively work in a concerted effort to arrive at the establishment of certain rational limits for interest rates. For that reason, it would be expected, at the upcoming meeting of the International Monetary Fund, to have a decision in this regard to generally place international financial-hard currency relations on more stable bases. This would correspond to the interests of all countries, contributing to general progress.

8724
CSO: 2700

FACTORS FOR GREATER LABOR PRODUCTIVITY STUDIED

Bucharest REVISTA ECONOMICA in Romanian 4, 11 Sep 61

[Article by Dr Engineer Barbu Gh. Petrescu: "Greater Labor Productivity Essential to Romania's Economic Development"]

[4 Sep 61, pp 12-13]

[Text] Greater labor productivity is one of the first requirements for building the fully developed socialist society and for Romania's advance toward communism. Actually, the whole fields of productivity and of material consumption are the areas where the gaps between Romania and the economically developed states of the world are the most conspicuous, since those states show higher levels of productivity and lower levels of consumption. Therefore accelerated growth of productivity, strict conservation of resources, continuing reduction of material consumption, and all the ways of accomplishing the objectives that are becoming particularly urgent in view of the world crisis in raw materials and energy and the growing competition throughout the world are the steps that must be taken to make the expected progress in developing the productive forces and raising the Romanian economy to high levels of productivity and efficiency. That is why Party Secretary General Nicolae Ceausescu referred to the problem of increasing social labor productivity as follows at the Second Congress of Workers Councils: "In order to reach the level of the developed countries and because Romania's productivity is 2 and even 3 times less in some sectors, we must make every effort and concentrate all forces in this period upon an intensive growth of labor productivity in all sectors of the national economy... In the historic competition between socialism and capitalism, socialism must assert its superiority by greater productivity of social labor, extensive scientific-technical creativeness, greater economic effectiveness, and fuller use of the initiative of the masses and the energy, competence and aptitudes of all workers."

Clearly the RCP considers greater productivity critical to the new quality to be achieved in all economic activity in the present stage. This requirement is not regarded as a campaign but as a permanent mass action supported by Romania's entire creative and intellectual power and by the combined efforts of all workers, from scientific and research personnel, whose activity is becoming more and more involved with directly productive activity as one of its basic and critical components today, to coordinating personnel and to the specialists, workers, technicians and economists working directly in production. Let us consider here the evolution of the productivity indicator in the Romanian economy and the requirements for its intensive growth.

Effect of Better Use of Production Factors

Thanks to the policies of national industrialization and especially of more intensive involvement of the qualitative factors in the developmental process and of intensified development of the sectors generating technical progress throughout the economy (policies particularly emphasized in the years following the Ninth Party Congress) calculated in proportion to the gross output and number of personnel, industrial labor productivity increased by about 10 times in 1950-1980, and major gains in productivity were also recorded in other sectors of the economy like construction, transportation etc. This evolution is relevant to development of the technical-material base, to the essential structural changes that have taken place among sectors and subsectors of the economy and especially of industry (namely a higher proportion of basic sectors on a high technical level and intensified technical equipment of labor), and to the qualitative changes made in the nature and content of the labor and in preparations for the operations. In this respect it is significant to compare the evolution of industrial labor productivity in Romania with that in some socialist countries:

Table 1. Evolution of Industrial Labor Productivity in Romania Compared with Some Socialist Countries

Țara 1	1970—1975		1975—1979		1970—1979	
	Indice de creștere	Ritm mediu de creștere	Indice de creștere	Ritm mediu de creștere	Indice de creștere	Ritm mediu de creștere
4	2	3	2	3	2	3
România	136	6.3	128	6.4	174	6.3
Bulgaria	109	1.7	133	7.4	145	4.2
Cehoslovacia	122	4.1	117	4.0	143	4.1
Ungaria	142	7.3	139	3.6	198	7.9
R. D. Germană	128	5.1	115	3.6	147	4.4

1. Countries
2. Growth index
3. Average growth rate
4. Romania

4. Bulgaria
- Czechoslovakia
- Hungary
- GDR

One major effect of increased labor productivity has been the increasing proportion of the gain in the industrial output (about 75-80 percent) that it has contributed in the last few years. Moreover the saving in live labor per unit of output that was made through increased labor productivity has lead (and will lead to a greater extent) to a general conservation of social labor. Amplification of the use values created throughout the whole economy through better use of the energy and raw material resources increased the proportion of the newly created value in the total of the activities, which process has been increasing the national income faster than the total social product.

This dynamic and increasingly qualitative development of the economy has been steadily enhancing the people's welfare. Since workers' incomes (especially in the last five-year plan and in correlation of course with the growth of productivity) have shown the greatest increase in the entire period of socialist construction (about 30 percent for real wages and farmers' incomes) and Romania's industry and economy have

supplied goods in keeping with those higher incomes, the very pattern of consumption and the way of life of the citizens of socialist Romania have been changed in their essential features, embodying more and more the attributes of civilization, prosperity and satisfaction.

The program for national development in this period and beyond, with its vital objective of enhancing economic effectiveness, primarily requires efforts toward a more pronounced gain in labor productivity. That is a requirement of the greatest importance to the vast undertaking of converting Romania from a developing country to one with a medium economic development. The tasks are commensurate with the requirements: Industrial labor productivity for example, calculated on the basis of the net output is to be up 40.4 percent in 1985 from 1980. This objective and increased productivity in general are significant reflections of the shift from extensive development, which requires a high consumption of production factors to obtain one unit of national income, to intensive development with the least possible consumption of those factors, which is a general characteristic of Romania's economic development in the present stage. That is the aim of the provision in the current five-year plan to increase the number of personnel in the economy by an annual average of 1.5 percent, which is considerably less than the rate in the last five-year plan (3.7 percent), while the national income is to be increased by an annual average of 7.1 percent, the net industrial output by 8.8 percent, and industrial labor productivity (computed on the basis of the net output) by 7 percent on the annual average.

As we know an increase in new investment projects and construction of new productive units will not be emphasized in this period so much as modernization of existing units and their use to full capacity. Therefore much better use must be made of the technical-material base of the economy and the nation's productive capacity, which have undergone an accelerated evolution (See Table 2) supported by intensive development of the machine building industry (1). The value of the fixed capital in the economy is now about 9 times greater than it was in 1950, amounting to about 1.9 trillion lei. Over half of this fixed capital was placed in operation in the last decade, providing the nation's industry and economy with a high standard of technical equipment comparable to a great extent to that of the developed countries of the world, and consequently the production results and productivity must be raised to the same level.

Productivity and the New Quality in Activity

The workers councils and workers collectives must take firm measures to utilize all reserves for greater labor productivity. These reserves are more strikingly revealed by analysis of the evolution of some qualitative indicators of Romanian industry. As indicated by the figures in Table 3, the installed power in kilowatts per person and per worker in industry increased by 2.3 times and 2.16 times respectively in 1965-1980. In the same period the gross output per person and per worker in industry increased by 2.74 times and 2.6 times respectively. Even the correlation of these figures alone indicates the great potentials for better use of the created capacities. Actually the gain in productivity, the real extent of which is actually better indicated by the physical units than by the value units, is the result of a series of factors including in particular (in addition to the level of technical equipment or installed power) better organization of production and labor, better use of working time, better supply of the places of production, permitting elimination of any idle time, improved qualification of personnel, etc. But the slight differences between the said figures actually between factors and effects, do not prove the effect of the whole series of factors for greater productivity, which clearly indicates many unexploited potentials.

The latter are also indicated by the evolution of the increase in gross industrial output per 1,000 lei of activated fixed capital and per 1,000 lei invested, and also by the sometimes still limited proportion of workers in the total industrial personnel (See Table 3).

Table 2. Activated Fixed Capital in the Socialist Sector According to Industrial Sectors and Five-Year Plans (in Millions of Lei)

7 Ramuri ale industriei	1961—1965 ^{a)}	1966—1970 ^{b)}	1971—1975 ^{c)}	1976—1980 ^{d)}
8 INDUSTRIE-TOTAL	71 778	142 887	238 637	347 512
Energie electrică și termică	8 035	22 205	29 250	44 106
Combustibil	14 888	18 432	23 083	43 202
Metalurgia feroasă ^{e)}	5 080	15 331	19 298	35 131
Metalurgia neferoasă ^{f)}	3 929	5 335	8 490	10 798
Construcții de mașini și prelucrarea metalelor	7 750	19 672	35 128	91 221
Chimie	10 081	20 937	36 497	41 400
Materiale de construcții	3 180	6 084	12 910	18 453
Exploatarea și prelucrarea lemnului	6 130	7 077	10 008	11 025
Celuloză și hirtie ^{g)}	3 263	3 589	4 263	3 386
Textilă	2 204	6 274	11 331	14 043
Pielărie, blănărie și încălțăminte	498	1 146	1 122	1 677
Alimentară	4 299	9 801	15 009	21 443

- | | |
|---|---------------------------------------|
| 1. In 1959 prices | 8. Ferrous metallurgy |
| 2. In 1963 prices | Nonferrous metallurgy |
| 3. In prices as of 1 January 1977 | Machine building and metal processing |
| 4. Including ferrous ores extraction | Chemistry |
| 5. Including nonferrous ores extraction | Construction materials |
| 6. Including exploitation of reeds | Wood exploitation and processing |
| 7. Industrial sectors | Pulp and paper |
| 8. Total for industry | Textile industry |
| Heat and electric power | Leather goods, furs and footwear |
| Fuel | Food industry |

Source: "Statistical Yearbook of Romania 1980" and other official data

The conclusions of some productivity studies made in machine building units and in metallurgy are interesting in this respect. They indicate that productivity can be raised by 30 percent by arranging the production flows more in accordance with the possibilities of supply and by better organization of the activity at every work place for teams and sections, by about 20-25 percent by reducing unscheduled time as well as absences, leaves etc., by about 10-15 percent by raising the average qualification index in a manufacturing section or team by 1 point, and by about 25 percent or even more by shifting the workers to several machines and setting the work norms more accurately as the technical and organizational conditions improve. The new economic-financial mechanism and the requirements for maximum operational effectiveness favor and encourage exploitation of all these additional potentials for greater productivity.

Table 3. Qualitative Indicators of Industry

Indicatori 1	U/M 2	1965	1970	1975	1980
Producția globală pe o persoană 3	lei 9	108 484	153 861	218 122	292 697
Producția globală pe un muncitor 4	lei 9	123 815	174 751	239 142	321 818
Sporul de producție globală la 1 000 lei fonduri fixe puse în funcțiune *) 5	lei 9	...	922	1 172	1 605
Sporul de producție globală la 1 000 lei investiții *) 6	lei 9	...	798	1 000	762
Putere instalată pe o persoană 7	kW 10	3,7	3,4	6,7	8,5
Putere instalată pe un muncitor 8	kW	4,3	6,1	7,4	9,3

*) Pe perioada cincinală 11

1. Indicators
2. Unit of measure
3. Gross output per person
4. Gross output per worker
5. Gain in gross output per 1,000 lei of activated fixed capital
6. Gain in gross output per 1,000 lei invested
7. Installed power per person
8. Installed power per worker
9. Lei
10. Kilowatts
11. For the 5-year period

The program for continued mechanization and automation and for introduction of industrial robots were justified figure in the process of raising labor productivity with highly important effects. Those objectives are thoroughly substantiated in the provisions of the five-year plan, which include priority rates of development for electronics and microelectronics, production of the means of automation and control of production processes, and production of machine tools with superior technical and economic performances. They also provide extensive measures for developing new technologies, renovating production and going on to raise its technical and qualitative level to that of the best comparable products in the world. The point to be stressed is that in the whole process of enhancing labor productivity, regardless of the methods used, conservation of resources and energy and increases in productivity with the least possible consumption of materials and energy (calculated cumulatively, for all stages of accumulation) must be both premises for starting the actions and end results essential to them.

FOOTNOTE

1. The machine tool building industry, the electrotechnical industry and equipment industries have regularly been in priority positions in the party programs for Romania's industrialization. From modest beginnings, the machine building industry showed regularly high rates of development in the last 30 years, so that its shares in the industrial output, in coverage of the labor force, and in the nation's exports steadily increased from 13.3, 7.2 [illegible] and 4.2 percent respectively in 1950 to 34, 13.4 and 18.2 percent in 1980. The role of these sectors is now being considerably enhanced by incorporation of cybernetics and automation, the essence of modern technical progress, in the manufactured products.

[11 Sep 81, pp 14-15]

As it was pointed out above, the Romanian machine building industry is making sustained efforts to equip the whole economy with modern technical means that will enhance its effectiveness. Those efforts are concentrated upon assimilation of new machines, equipment and installations with advanced technical-operational characteristics that will better meet the requirements for productivity and economy of the units in industry and in the other economic sectors. Thanks to the considerable investments made by our party and state to expand and reequip the existing enterprises and to construct new units equipped with advanced technology, the volume of fixed productive capital in industry has steadily increased and the technical equipment of labor has been intensified, creating the critical conditions for greater labor productivity in each and every enterprise. Moreover the mass of producer goods activated by the labor force is being increased not only in that way but also through self-equipment. Design and construction of machines, assemblies and installations by an enterprise's own forces, or in cooperation with other units, according to the particular needs of the production process are contributing to the effectiveness of operations in the sections where those machines are introduced, in addition to the savings in investments that are made, and often in foreign exchange reserves as well. But precise analysis of the progress of both these processes indicates major reserves for greater productivity, at least in keeping with the efforts that are made toward technical equipment of the economy (Table 4).

As indicated by the figures in Table 4 (which analyzes the 1976-1980 period, which concentrated the heavy investments made in 1971-1980 (about 1.5 trillion lei), and the 1966-1970 period, when emphasis upon the intensive factors for development began throughout the whole Romanian economy), the fixed capital in units was used more intensively in 1976-1980 than in the 1966-1970 period. On the other hand the high technical-economic parameters of the activated fixed assets as well as the levels of labor productivity in the analyzed periods compared with the productivity indices reached in the economically developed states reveal many possibilities for increasing labor productivity. To be sure efficient use of the production capacities and a consequently higher level of labor productivity are affected by a number of technical-structural factors (such as a higher proportion of groups of highly productive machines and equipment), by organizational factors in connection with concentration, specialization, combination and cooperation in production and better organization of operations, and by social, natural and other factors. But on the whole the industrial units' efforts to enhance labor productivity are to take two main directions: (a) adoption of the most suitable measures to make full use (in working time) of the equipment, and (b) better use of the equipment from the intensive standpoint.

The programs so planned (which will also emphasize restoration of inactive equipment to production, more intensive use of production space for machines, equipment and installations, raising the shift coefficient, etc.) and their confirmed effects can and will be increasingly able to permit the greatest possible output from every unit of fixed assets. Improved planning of the production tasks for purposes of closer correlation of the capacities with those tasks is also important in this connection. Discrepancies between the capacities of the various sectors and some plan provisions, production bottlenecks, manufacturing lots that do not correspond to the technological and manpower capacities, defective technical and technological preparation of production, inadequate supply of work places and failure to staff them with the necessary manpower; growing technological gaps between sections; inadequate maintenance, adjustment and servicing of machines and installations, and faulty maintenance and

repair of equipment — all these must be eliminated as soon as possible from the practice of the industrial units, but action must be taken first in their planning and substantiation of the plan provisions.

Table 4. Growth by Periods of Industrial Output, Fixed Productive Capital, Average Number of Regular Personnel and Industrial Labor Productivity (in %)

Indicatori 1	1968— 1970	1976— 1980
Producția industrială 2	175	157,4
Valoarea fondurilor fixe productive în 3 industrie	106	circa 104,0
Nr. mediu scriptic al personalului 4	123	121,3
Productivitatea mun- cii în industrie 5	142	140,4
Dinamica gradului de înzestrare a mun- cii cu fonduri fixe 6	154	138,2
Dinamica producției globale ce revine pe unitatea de fonduri fixe 7	94	96
Dinamica fondurilor fixe ce revine pe uni- tate de producție glo- bală 8	106	104,2
Raportul dintre creș- terea productivității muncii și a fondurilor fixe 9	0,76	0,86
Diferența dintre creș- terea productivității muncii și înzestrarea muncii cu fonduri fixe 10	-12	+3,2

1. Indicators
2. Industrial output
3. Value of fixed productive capital in industry
4. Average number of regular personnel
5. Industrial labor productivity
6. Evolution of degree of equipment of labor with fixed capital
7. Evolution of gross output per unit of fixed capital
8. Evolution of fixed capital per unit of gross output
9. Ratio between growth of labor productivity and growth of fixed capital
10. Difference between growth of labor productivity and equipment of labor with fixed capital

Greater labor productivity and especially greater productivity of social labor depend not only on the changes made in the structure and quantity of the means of labor and, in connection with them, those made in the manufacturing technologies but also on the quality and degree of use of the raw materials. From the standpoint of labor effectiveness, development of the raw material base by enlarging the assortment and improving its qualitative characteristics directly contributes to savings in labor outlays by reducing the volume of labor needed to process it, by the more effective manufacturing processes that can be used, by reducing the inputs of raw materials for each

and every product, etc. In his speech at the Second Congress of Workers Councils Party Secretary General Nicolae Ceausescu pointed out that henceforth particular efforts will be made to reduce consumption of raw materials, materials, fuels and energy by their rational use and better exploitation in order to make a more pronounced reduction of production costs and especially the material ones and consequently increase the productivity of social labor.

Training and Improved Qualifications as Critical Factors

But the efficiency of man's labor does not depend upon the material production conditions alone. The labor force, the people expected to activate the whole gearing of social production, play a part of the greatest importance in increasing labor productivity. Special emphasis must be placed on sound knowledge of the manpower requirement and quality because greater demands are now made on the labor force than in the case of a less perfected technology. Actually in industry and in all activities in the economy the proportion of intellectual effort compared to physical effort is increasing, every worker's responsibility for the resources entrusted him is and must be much greater, and promptness and accuracy in work are and must be much greater even than in a not very distant past. Therefore it is evident that at present the level of labor productivity critically depends upon the quality of the labor force, the level of knowledge and its preparation, and the effectiveness with which the labor force uses the potentials it acquires through training.

And under these circumstances, thanks to greater labor productivity, manpower is being conserved much more than in the past in one field or another or in one sector or another where labor productivity is better. But that does not at all mean that intensive development of the economy is reducing the labor force to the function of "servicing and control" of the automated processes, because the machine reduces the volume of work but does not do away with work. Material production is constantly diversified on the basis of scientific and technical advances. New sectors appear which make more complete use of the existing resources and broaden the very dimensions of production. This process of growth of material production is also accompanied by the creation of new jobs permitting employment of those who have become dispensable in other sectors. Therefore conservation of manpower is of a relative nature, defined in terms of certain conditions existing in the past.

At this point let us check a few general indicators for Romania. The population was up 35.2 percent in 1979 from 1950, the employed population was up 23.2 percent, and the number of jobs was about 3.4 times greater. And so with industrial development, promotion of technical progress throughout the economy, growth of agriculture and the other economic sectors, and an employed population a little more than 20 percent greater, a social product and a national income about 14 times greater were achieved in the analyzed period. Industrial labor productivity per person was about 9 times higher in 1979 than in 1950. By correlating the two evolutions we can express, on a general level, the growth of the manpower potential through technical equipment, occupational training, and acquisition of experience.

Because of the rapid development of the economy there was an absolute increase in the number of personnel in industry despite the steady growth of productivity. The figures in Table 5 illustrate this process. The table indicates that in all the mentioned periods the growth of labor productivity was accompanied by an increase in the labor force employed in Romanian industry, at different rates of course, depending primarily upon the extent of economic growth and also, on a certain level, upon the

intensity of production in each period. Upon checking the figures in Table 5 from this standpoint we see in general, in the first 5-year periods, and on a lower level of economic development an increase both in productivity and in the number of personnel, so that in the years after 1965 we find in particular a steady growth of labor productivity from one 5-year period to the next that proceeds continuously, therefore, from a basic growth and is accompanied by a slower increase in the number of personnel. It is a fact that brings out the trend toward intensification of Romania's economic development.

Table 5. Growth (by 5-Year Periods) of Labor Productivity and of Number of Personnel in Romanian Industry (in %)

	1951 — 1955	1956 — 1960	1961 — 1965	1966 — 1970	1971 — 1980
Creșterea productivității muncii	1 100	145	145	142	140.4
Creșterea numărului de personal	2 133	116	133	123	121.3

1. Growth of labor productivity

2. Growth of number of personnel

The twofold connection between the labor force and productivity (While the labor force is a factor for greater labor productivity, the latter affects the labor force quantitatively and qualitatively) flows from the nature, forms, content and functions of man's participation in the production process. All these, in correlation with technical progress, determine the quantitative and qualitative proportions of the use of the labor force, while the full exploitation of its socioeconomic potentials and rapid economic growth ultimately depend upon the quality of the labor force, the structure and level of education and instruction of the human resources, and their relationship to the means of production.

In other words, the qualification and improvement of the qualification of the labor force are essential to efficient use of the human resources, being factors of major importance to greater labor productivity. This economic category (qualification) refers to the entirety of theoretical and practical disciplines, to the level of professional competence and potential surpluses in that respect, and to the skill and working experience of every worker. In the light of this broad content, it is clear why the program for occupational training of personnel has become particularly important as a decisive factor in the process of increasing productivity (1). And this characterizes the programs promoted by the party and state to keep increasing the number of skilled personnel in the total, to improve the qualifications of all personnel, to base Romanian education on sound principles of social effectiveness, and to constantly refresh every worker's knowledge of the disciplines essential to the best accomplishment of material production or any activity.

FOOTNOTE

1. Study of the effectiveness of occupational training of personnel is now one of the economists' main interests, and analysis of the so-called (incorrectly in fact) "residual factor" (improvement of labor productivity through the level of education and qualification) has become, especially in the last decade, a main aim of study of the correlation between qualification and economic growth.

NEW INDUSTRIAL EQUIPMENT, MACHINERY INTRODUCED

Bucharest STIINTA SI TEHNICA in Romanian No 6, Jun 81 pp 6-7

[Unattributed article: "A Romanian Technical Premiere"]

[Text] The P-400 DEC Drilling Rig

At the work session devoted to analyzing and establishing the measures for improving the activity in the field of the extractive industry in 1979, Comrade Nicolae Ceausescu stated that "In the field of the oil industry it is necessary to intensify the work of drilling—in particular, very deep drilling—for discovering new reserves, considerably raising the degree of recovery of crude oil from the fields, and increasing the extraction in the known oilfields and, especially, in the new ones discovered."

Following these instructions, the oil-industry specialists in our country devised the P-400 DEC drilling rig.

The stand tests on the rig, driven by direct-current motors by means of thyristors, powered by 660-volt alternating-current generating sets, were recently finished at the Ploiesti "1 Mai" Enterprise. At the present time, the equipment of the rig is set up at the Craiova oilfield, well 5,565 "Stoina" (Gorj County), where, under the supervision of engineer Leontin Maciuca, the endurance tests are being made with a view to the final approval of this new Romanian product.

In order to present this new type of drilling rig, whose design and manufacture were necessitated especially due to the economisation of the conventional fuel consumed per meter drilled (and especially the liquid fuel), we called on Comrade engineer Valeriu Patrascu, within the Autonomous General Directorate for Petroleum and Gas, a direct participant in achieving this new rig, who was so kind as to give us some of the main technical and economic-efficiency characteristics. First, the P-400 DEC can drill down to 7,000 meters in depth with 4 and $\frac{1}{2}$ -inch drill pipes; the maximum load on the hook is 400 tons of force; the speed in raising the hook at maximum load is 0.385 meters per second; the number of speeds on the maneuvering drum, 4; the maximum length of the steps that can be maneuvered on the mast is 27 meters; the maximum pressure of the mud pumps is 350 bars; the height of the mast from the platform of the well to below the beam of the crown block is 44 meters; the input power on the draw works is 2,300 horsepower; the maximum speed of the rotary table is 250 rotations per minute.

The elements with a novel character, which are making their entrance in the equipment of the F-400 DEC rig and which are to be approved at well 5,565 "Stoina," are the 2,500-kilovolt-ampere generating sets (3 units), equipped with 12-cylinder diesel motors, made at the Resita Hydrotechnical Research and Design Enterprise on an ALCO [expansion unknown] license (with the cooperation of engineers Dan Grula and Virgil Adam), and 660-volt alternating-current generators, made at Craiova "Electroputere" with the cooperation of engineer Nicolae Cristea. These three generating sets form a micropowerplant, with a common bar, totaling an installed power of 7,500 kilovolt-amperes. The rig also has an SESC [expansion unknown]-3DG-2500 station with electric equipment, which includes static-excitation equipment, voltage regulation, synchronization, bar coupling and power distribution, designed and made by the Bucharest Electrotechnical Research and Design Institute [ICPE], in which engineers Valeriu Ciofu, scientific director, Romulus Zaroni, Elena Lapedatu, Viorel Ghita and Mariana Micu participated. Into the equipment of the rig there also enter the SDACR [expansion unknown]-2 x 850 stations (three units), which each contain two drive moduli with converters with thyristors, for powering, controlling and regulating the revolutions of the seven 850-kilowatt direct-current motors, which drive the pumps, the draw works and the rotary table, also designed and made at the Bucharest ICPE.

The 350-bar 3-PN-1600 motor-pump sets constitute other equipment of the rig, having 150 two-strokes, with single acting, being equipped with two 850-kilowatt direct-current electric motors and designed at the Ploiesti Design and Construction Enterprise for Petroleum Equipment by engineers Alexandru Radulescu, technical director, Iulian Gradisteanu, Nicolae Peligrad, Cheorghe Andrei and Virgil Jugureanu. The execution of this equipment was done at the Ploiesti "1 Mai" Enterprise.

The unit for engaging the rotary table with the 850-kilowatt direct-current electric motor, the mast and the substructure, with a maximum capacity of 645 tons of force, with which the F-400 DEC is equipped, were also designed and made at the two Ploiesti enterprises.

The assembly of the equipment and the placement of it in the rig are done on three levels: the micropowerplant, the electric equipment for driving, regulation and control, the motor-pump sets, the mud-preparation and -circulation installation, the shacks of the installations and so on are set up at ground level; the draw works and the unit for driving it are set up at the height of 1,400 mm; the level of the well's work platform, where the rotary table, the unit for engaging the table with the shafts of the motors and so on are set up, is at the height of 6,000 mm.

The installations are of a decentralized type, which provides total independence among the main sets of machines, permitting their placement in an optimum manner and installation at the site in the shortest possible time. Due to the great height of the platform of the well, sufficient space for installing the most complex blowout preventers is provided under the beams of the rotary table. In addition, the F-400 DEC also has the advantage that the mud-preparation, -circulation and -storage installation is almost completely housed in a standard shack, then the chemical tank and the mixing unit are located in the chemical shack, and the 2-PN-400 motor-pump set is located in the shack of the rig. In order to provide for transportation by railroad or on public roads, the installations contain a low number of outsized functional assemblies on the conveyor, whose installation at the site can be done without using special hoisting machines.

A Modern Machining Center with a Horizontal Axis [Figure 1]

One of the recent achievements of the Enterprise for Machine Tools and Aggregates (IMUA) in Bucharest is the boring and milling machining center with a horizontal axis, with a boring-shaft diameter of 150 mm (CPAF-150). It is a machine tool with numerical control equipped with a tool magazine and an automatic tool-changing device, with a cruciform frame, with a longitudinally displaceable stand and with a transversally displaceable rotary table [MRD].

Other technical characteristics that recommend it: the transversal displacement of the table (with MRD 1,700 and MRD 2,000), 3,000 and 3,500 mm with rotary movement from 0 to 360 degrees; the vertical displacement of the broach-holder poppet, 3,000 mm; the longitudinal displacement of the stand, 1,500 mm; the displacement of the boring shaft, 1,000 mm; the part-gripping area, 1,700 x 2,000 mm (2,000 x 2,500 mm); the maximum load, 30 tons; the power of the motor (direct current), 30 kilowatts; and the overall dimensions, 8,500 x 8,115 x 5,955 mm.

The CPAF-150 is distinguished by sturdiness and rigidity of construction and by safety and greater comfort in operation. The selection of this type of machining center with a horizontal axis is indicated for the machining of bodies of medium and big dimensions, cylinder blocks, frames of any type, chassis, motor axles and so on.

The most important economic effects turn up in the reduction of the unit worktime per product, in the growth of the labor productivity by about 50 percent in comparison with the machines with numerical control without numerical tool-changing, and in the providing of high precision in execution.



Fig. 1

The PS-4TA Structural Drilling Rig [Figure 2]

The achievement of the PS-4TA structural drilling rig, used in drilling work in quarries, for producing holes on a vertical and inclined plane, is a prestigious success of the workers at the Ploiesti CIUPM [expansion unknown]. The depth down to which this drilling can reach is 120 meters and it can be done with drill pipes between 60.3 and 250 mm in diameter.

The whole rig is set on a sturdy tractor, whose overall dimensions are 7,000 x 3,500 x 4,000 mm and which can be moved under conditions of maximum sureness and safety over the roughest ground. The power of the motor is 150 horsepower, with 1,700 rotations per minute.

The operator's post, set in a cab with good visibility, provided with air conditioning, contains all the controls needed for running the whole assembly (transportation, placement in working position, drilling, maneuvering operations and so on).

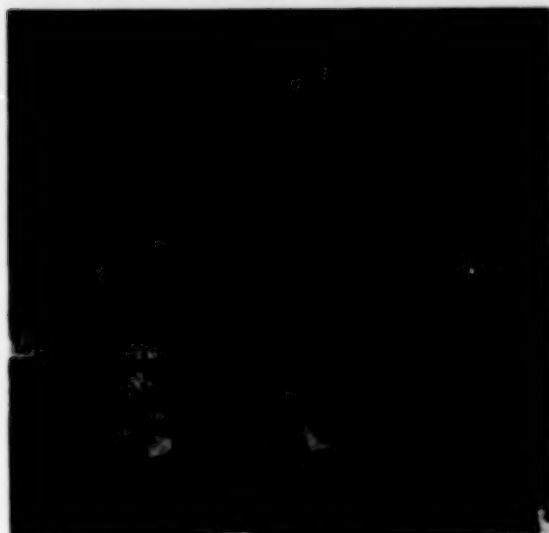


Fig. 2



Fig. 3

The FD-250 Gear Cutter [Figure 3]

A product of the Cugir Machine Enterprise, the FD-250 gear cutter is equipped with: a device for convex cutting; a device for hydraulic compression of the part; and a magnetic conveyor of shavings. Among the technical characteristics of the cutter, we note: the maximum processing diameter is 250 mm; the maximum normal modulus, 6 mm; the minimum number of teeth, 8; the maximum axial path of the tool, 280 mm; the limits of the speed of the main shaft, between 56 and 335 rotations per minute; the power of the main electric motor, 5.5 kilowatts; the net weight, including the normal accessories, 5,400 kg.

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